

# OUR HISTORY

**elesa®** is the brand name of a great company called **ELECTROFILM ESPAÑOLA, S.A.** born in February 1965 thanks to its founding partner Mr. Teodoro Carvajal Gallego.

**Electrofilm Española, S.A.** began collaborating with the company **ELECTROFILM INC., USA**, located in West Lafayette (Indiana), importing its technology and lubricant products in all its formats.

Starting as an importing company and solely dedicated to the marketing of lubricants of well-known brands such as Lubri-Bond and Everlube, manufactured in accordance with the American **MIL** standards, it has reached such dimensions that motivate us to **GROW**.

In 1985, the management of **ELECTROFILM INC, USA** offered us the acquisition of their facilities in West Lafayette. In those years the Spanish government did not allow us to import their machinery from the USA. **ELECTROFILM INC., USA** begins negotiations with a large American chemical group, Great Lakes Chemical Corporation (GLCC). Nowadays we are independent.

Given our excellent relationship and professional cooperation, **ELECTROFILM INC., USA** decided to transfer all its technology, know-how and original formulations to **ELECTROFILM ESPAÑOLA, S.A.** before joining **GLCC** in 1988. and original formulations to **ELECTROFILM ESPAÑOLA, S.A.** This gave us the opportunity to grow as a company and to embark on the great adventure, after a long commercial career as importers, to become specialised manufacturers in the lubrication and industrial engineering sector.

This entailed a further change of facilities to the current management. The group of American technical specialists worked with us until the factory and its various production processes were up and running. To date, we manufacture more than 4000 product references.

Our company has specialised in industry since our beginnings, particularly in the maintenance and lubrication sector. Far from being a craft activity, production becomes an important technical process, inspected by measurement and evaluation systems.

The constant research, development and innovation of our technicians, their dedication and continuous work with small-scale pilot plant, has allowed a deep knowledge of the parameters that differentiate the reactions, mixtures, dispersions and emulsions, in order to offer homogeneity in the mixtures and give adequate performance to the manufactured lubricants.

At present, all our products are manufactured and supervised under our implemented quality system, complying with UNE EN-ISO-9001 and 14001 standards. **Elesa** designs and manufactures specific preparations for certain customers.

In parallel, our technical department provides added value in the form of immediate personal attention, either on site or via the customer service hotline. We carry out lubrication studies, advice on reducing unnecessary stocks, analysis of new and used lubricants, applied engineering, training courses, etc.

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Our team is highly qualified in engineering, chemistry, mechanics, economics, quality and environment with the ultimate goal of increasing the life cycle of the products and the business relationship with our customers in their multiple sectors and to meet the demands of the very competitive and close global market.

We love a challenge and we provide enhanced performance to our products through close contact with our market-leading additives, which make the difference between market leaders. All of this is in line with safety, hygiene and environmental requirements.



|                                         |         |
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## PRODUCT RANGE

We currently manufacture more than 4000 references of Speciality and Precision Lubricants, as well as Process Products and other Chemical Products.

Our wide range of products includes:

- Oils
- Greases
- Assembly pastes
- Cutting fluids
- Cleaners, release agents and protective agents
- Additives

The working sectors are so diverse that we wanted to categorise our catalogues and help our customers in their choice of products. In this catalogue, you will be able to view industrial products covering: cement, nuclear and power plants, chemicals, textiles, plastics, glass, etc.

We also have a multidisciplinary R&D&I Department, which allows us to study each particular situation of our clients, and provides tailor-made solutions to the various problems and challenges that may arise.

See also our other catalogues:



# AEROSOLS

Elesa has a wide range of products in aerosol format.  
Cleaner work and easier application.

## CLEANERS



| PRODUCT                                                                                                   | No<br>AEROSOL | CLEANING<br>CAPACITY | SPEED<br>EVAPORATION | INFLAMMATION<br>RESISTANCE<br>(BULK) | OTHER<br>FEATURES<br>HIGHLIGHTS                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------|---------------|----------------------|----------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>PRESTIGE K1</b>       | 5             | ●                    | ●                    | ●                                    | Contact cleaner, fast evaporating, cleans metal surfaces, does not attack rubber and plastics.                                                                                  |
|  <b>PRESTIGE TECH K1</b>  | 6             | ●                    | ●                    | ●                                    | Cleaner for adhesives, most common glues, residues in moulds and extrusion nozzles                                                                                              |
|  <b>CLEAN K1 K3 IPA</b> | 19            | ●                    | ●                    | ●                                    | Dielectric electronic circuit cleaner, alcoholic Isopropyl alcohol >70%                                                                                                         |
|  <b>FOAM CLEANER</b>    | 11            | N.A.                 | N.A.                 | N.A.                                 | Foam cleaner for glass, plastics, enamelled surfaces, painted surfaces, stainless steel, chrome, keyboards, plasma screens, computer equipment, fabrics, carpets and upholstery |

## MOULD RELEASE



| PRODUCT                                                                                                           | No<br>AEROSOL | TEMP.<br>WORKING (°C) | OTHER<br>FEATURES<br>HIGHLIGHTS                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------|---------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>LUBE H1 SILICONA</b>        | 5             | -55 to 230 °C         | Demoulding of plastics and elastomers. Dielectric. Resistant to oxidation and aggressive environments and to washing with water and organic solvents. Rubber regeneration                                                                                                                                                                           |
|  <b>DESMOL FSA SIN SILICONA</b> | 17            | -5 to -35 °C          | Release agent for plastics and elastomers. Polishing agent. Injection, compression or vacuum processes. Does not affect paints and inks. Anti-spatter in welding agent for plastics and elastomers. Polishing agent. Injection, compression or injection, compression or vacuum processes. Does not affect paints and inks. Anti-spatter in welding |



EXCELLENT



GOOD



REGULAR



NOT SUITABLE



5



| PRODUCT | No<br>AEROSOL (KG) | EP<br>COR. | PROTEC.<br>COR. | ADHES. | RES<br>WA-<br>TER | TEMP.<br>WOR-<br>KING (°C) | F.VELOC. |  |  |  |  |  |  |  |  |  | OTHER<br>FEATURES<br>HIGHLIGHTS |
|---------|--------------------|------------|-----------------|--------|-------------------|----------------------------|----------|--|--|--|--|--|--|--|--|--|---------------------------------|
|---------|--------------------|------------|-----------------|--------|-------------------|----------------------------|----------|--|--|--|--|--|--|--|--|--|---------------------------------|

## OILS



LUBRITEF 1

1

315



-10 to  
150 °C

—



Chains, guides



BLACK LUBE  
CHAIN

28

800



-30 to  
150 °C

—



Extreme lubricant  
for guides, cables  
and chains.  
Resistant to dust  
and water jet  
washing

## GREASE



ARIS TF

2

500



-20 to  
145 °C

500.000



With PTFE.  
Systems with  
shock loads



CHAIN LUBE  
FILM

23

500



-20 to  
145 °C

500.000



Chains with water  
and high speed



NT H1 TF

3

400



-25 to  
150 °C

150.000



Non-toxic H1 white  
adhesive grease



ALBA H1  
HIGH  
TEMP

9

315



-60 to  
250 °C

750.000



Furnace and  
ovens and  
freezing



BLACK  
LUBE  
CHAIN FILM

38

400



-20 to  
160 °C

100.000



Open gears, cables  
and chains. Loads



EXCELLENT



GOOD



REGULAR



NOT SUITABLE



6





# GENERAL LUBRICATING OIL

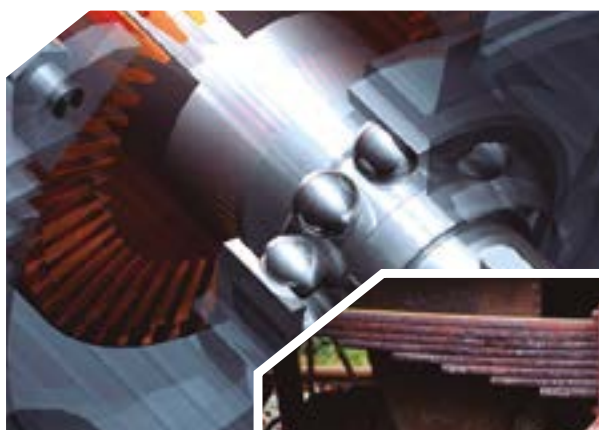
The aim is to reduce energy consumption, reduce vibrations and the coefficient of friction, extending the service life of the elements by working with less effort.

## elesa AEG

High quality paraffinic mineral oil for general lubrication and greasing of all types of elements and machinery subjected to medium loads and moderate speeds.

## GENERAL LUBRICATION LUBRICANTS

| PRODUCT | EP. (Kg) | VISCOSITY<br>INDEX<br>ISO 2909 | ISO VG<br>40°C, cSt<br>ISO 3448 | T. WORKING, °C | APPLICATIONS                                                                                                                                                                                                                                                                                                                                                                      | PROPERTIES                                                                                                                     |
|---------|----------|--------------------------------|---------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| AEG     | 126      | 95                             | 15, 22, 32                      | -8 / > 105     | <ul style="list-style-type: none"> <li>Hydraulic systems which do not special requirements</li> <li>Enclosed spur, helical, bevel and worm gears, helical, bevel and worm gears carrying light loads</li> <li>Guides and chains with inverted teeth and roller chains</li> <li>Plain and rolling bearings operating at speeds and operating at medium speeds and loads</li> </ul> | <ul style="list-style-type: none"> <li>Good anti-corrosion</li> <li>Oxidation stability</li> <li>High demulsibility</li> </ul> |
|         | 126      | 95                             | 46, 68, 100, 150                | -8 / > 105     |                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                |
|         | 126      | 95                             | 220, 320                        | -7 / > 110     |                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                |
|         | 126      | 95                             | 460, 680                        | -7 / > 110     |                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                |



# HYDRAULIC OILS

The main purpose of any hydraulic fluid is to transmit mechanical energy through a hydraulic power system.



## elesa BULL

Range formulated with our mineral, synthetic, vegetable, biodegradable synthetic and glycol bases depending on the type of machine or installation. Our hydraulic oils prevent wear on seals and sealing rings. The pressure transmitted to our oil is stable in its path and dissipates the temperature produced in its movements.

Our goal is to reduce friction, wear, corrosion and oxidation in different situations, which is why we have a wide range that allows you to choose the best product in each case. Our oils provide the necessary sealing in pressurised parts such as valves.



mineral oil

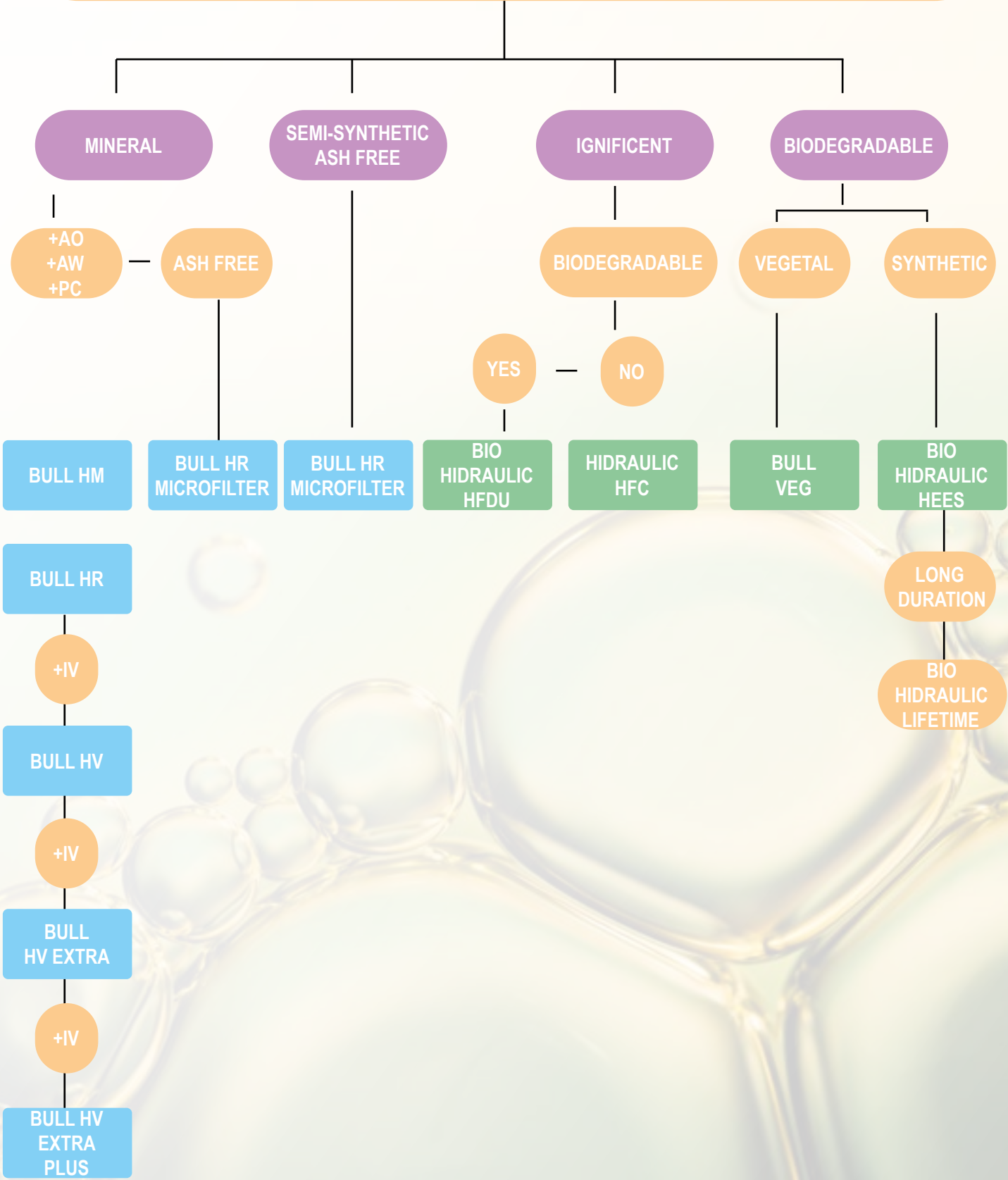


synthetic oil



biodegradable oil

# DO YOU NEED A HYDRAULIC OIL?



## HYDRAULIC SYSTEM OILS

| PRODUCT                     | QUALITY LEVEL                                                                                                                                         | INDEX VISCOSITY ISO 2909 | ISO VG 40°C, cSt ISO 3448 | APPLICATIONS                                                                                                                                                       | PROPERTIES                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BIO HIDRAULIC HEES          | OECD-301-B<br>ISO 15380 clase HEES<br>ISO 6743/4 clase HEES<br>DIN ISO 15380 HVLP<br>DIN 51524/3 excepto TOST.<br>VDMA 24568 clase HEES               | 180                      | 15, 22, 32, 46, 68        | <ul style="list-style-type: none"><li>• Hydraulic systems</li><li>• CNC, presses, shears</li><li>• Machinery where there is a risk of contamination</li></ul>      | <ul style="list-style-type: none"><li>• Very good EP characteristics</li><li>• Very high viscosity index and its viscosity will not be reduced by shear</li><li>• High chemical stability, with high resistance to ageing</li><li>• Very high flash and ignition point</li><li>• Miscible with mineral oils</li></ul>                                    |
| BIO HIDRAULIC HEES LIFETIME | OECD-301-B<br>ISO 15380 clase HEES<br>ISO 6743/4 clase HEES<br>DIN ISO 15380 HVLP<br>DIN 51524/3 excepto TOST.<br>VDMA 24568 clase HEES               | 143                      | 46                        | <ul style="list-style-type: none"><li>• Loading bays</li><li>• Lifts</li><li>• Doors</li><li>• Gates</li><li>• Robots, etc.</li></ul>                              | It includes the properties of BIO HIDRAULIC HEES and in addition: <ul style="list-style-type: none"><li>• Excellent behaviour at low temperatures</li><li>• High hydrolytic stability</li><li>• Wide range of use temperatures</li><li>• Low viscosity variation with temperature</li></ul>                                                              |
| BIO HIDRAULIC HFDU          | OECD-301-B<br>VDMA 24 317 HFD-U<br>UNE EN ISO 12922:2013<br>ISO 6743-4 HFD-U<br>DIN 51 502 HFD-U<br>DIN 51524 parte 2(HLP)<br>DIN 51524 parte 3(HVLP) | 185                      | 32, 46, 68                | <ul style="list-style-type: none"><li>• Hydraulic systems systems with a fire risk</li></ul>                                                                       | <ul style="list-style-type: none"><li>• Anti-fire fluid that eliminates the risk of fire in installations working at high temperatures</li><li>• Very high viscosity index</li><li>• Compatible with most common elastomers, as well as with paints</li></ul>                                                                                            |
| BULL VEG                    | OECD-301-B<br>VDMA 24568.<br>ISO 6743-4 HM<br>ISO 11158 HM<br>ISO 6743 HETG                                                                           | 200                      | 32, 46, 68                | <ul style="list-style-type: none"><li>• Hydraulic systems</li><li>• Forestry, agricultural, quarrying quarries, marshes and marine</li></ul>                       | <ul style="list-style-type: none"><li>• 100% vegetable based, biodegradable. Environmentally friendly</li><li>• Contains no viscosity-increasing polymers</li><li>• Very high viscosity index</li><li>• Longer lasting and prevents the resin formation</li><li>• Corrosion protection of steel and copper</li><li>• Miscible with mineral oil</li></ul> |
| BULL HM                     | ISO 6743-4 HM<br>ISO 11158 HM<br>DIN 51524 partes 2 (HLP)<br>y DIN 51.517/2 CL                                                                        | 110                      | 32, 46, 68, 100, 150      | <ul style="list-style-type: none"><li>• Hydraulic systems</li><li>• Loading docks</li><li>• Lifts</li><li>• Doors</li><li>• Gates</li><li>• Robots, etc.</li></ul> | <ul style="list-style-type: none"><li>• Paraffinic based mineral lubricating oil designed for hydraulic systems hydraulic systems. Contains anti-rust, anti-wear and anti-foam additives</li><li>• Microfiltration with 20 micron filter and magnetic pre-filtration ensures the retention of smaller metallic particles</li></ul>                       |
| BULL HM SS                  | AFNOR NFE 48603-HM<br>CININNATY<br>LAMB-MILACRON P-68, 69 , 70<br>VICKERS M-2952-S / M-2950-S /I-286-S3<br>KOMATSU KES 07.841.1                       | 110                      | 32, 46, 68, 100, 150      | <ul style="list-style-type: none"><li>• Hydraulic systems where silicone-free oil is required</li></ul>                                                            | <ul style="list-style-type: none"><li>• It includes the properties of BULL HM but completely free of silicones</li><li>• Recommended in hydraulic systems hydraulic systems of any industrial or public works</li></ul>                                                                                                                                  |
| BULL HM ROJO                | KOMTASU HPV 35-35<br>Pump test                                                                                                                        | 110                      | 32, 46, 68, 100, 150      | <ul style="list-style-type: none"><li>• Hydraulic systems</li><li>• Loading docks</li><li>• Lifts</li><li>• Doors</li><li>• Gates</li><li>• Robots, etc.</li></ul> | <ul style="list-style-type: none"><li>• It includes the properties of BULL HM, but with a red dye that enhances improves product visualisation for easier leak detection</li></ul>                                                                                                                                                                       |

**biodegradable oil**



# HYDRAULIC SYSTEM OILS

| PRODUCT                    | QUALITY LEVEL                                                                                                                                                                                     | INDEX VISCOSITY ISO 2909 | ISO VG 40°C, cSt ISO 3448              | APPLICATIONS                                                                                           | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BULL HR</b>             | ISO 11158 HM y HR<br>AFNOR NFE 48603-HM y HR<br>CINCINNATY LAMB-MILACRON P-68, 69, 70<br>DENISON HF-2, HF-1 y HF-0<br>VICKERS M-2952-S / M-2950-S/<br>I-286-S3<br>GRUPO DANOBAT para ISO 32 a 150 | 110                      | 2, 5, 10, 15, 22, 32, 46, 68, 100, 150 | • Hydraulic systems and mechanisms that need high precision                                            | <ul style="list-style-type: none"> <li>• Developed for use in hydraulic systems and circuits with hydrostatic systems requiring viscosity improver to withstand pressure at varying temperatures without changing the way they work</li> <li>• High oxidation resistance, wear resistance and corrosion protection. High viscosity</li> <li>• Low freezing point facilitates work in winter and low temperature systems</li> <li>• Microfiltration to safety level, with filter fitted with a magnetic pre-filtration which ensures the retention of smaller of lower micron metallic particles</li> </ul>                                                          |
| <b>BULL HR MICROFILTER</b> | ISO 11158 HM y HR<br>AFNOR NFE 48603 (HM)<br>AFNOR NFE 48603-HM y HR                                                                                                                              | 110                      | 32, 46, 68, 100, 150                   | • Hydraulic systems and mechanisms that need high precision                                            | <ul style="list-style-type: none"> <li>• Same properties as BULL HR but zinc free (ash free)</li> <li>• Excellent viscosity-temperature characteristics</li> <li>• Good anti-wear protection. Important when systems working at high pressures</li> <li>• High corrosion protection and good compatibility with seals and paints. Protects the system condition and prevents leaks</li> </ul>                                                                                                                                                                                                                                                                       |
| <b>BULL HV</b>             |                                                                                                                                                                                                   | 140                      | 2, 46, 68, 100, 150                    |                                                                                                        | <ul style="list-style-type: none"> <li>• Ultra-refined paraffinic based mineral oil with high viscosity index</li> <li>• Additive for increased wear resistance</li> <li>• Recommended for use in hydraulic systems in all industrial and public works applications</li> <li>• Its viscosity will not decrease due to shear</li> </ul>                                                                                                                                                                                                                                                                                                                              |
| <b>BULL HV EXTRA</b>       | ISO 6743-4 HV<br>ISO 11158 HV<br>DIN 51524 Partes 3 (HVLP)<br>AFNOR NFE 48603-HV<br>CINCINNATI MILACRON P-68, 69, 70<br>DENISON HF-0, HF-1, HF-2<br>VICKERS M-2952-S /M-2950-S / I-286-S          | 150                      | 32, 46, 68, 150                        | • Hydraulic systems and mechanisms in severe working conditions such as pressure and continuous motion | <ul style="list-style-type: none"> <li>• Same as BULL HV, but with higher viscosity</li> <li>• Very good anti-wear characteristics and withstands the Extreme Pressure levels required in gears and bearings at low load</li> <li>• Very low freezing point which, together with the low viscosity variation with temperature, allows working inside cold chambers and facilitates winter</li> <li>• Applicable in light and medium load gear systems, lubricated by and medium-loaded gear systems, greased by circulation or splash lubrication. Can also be used for rolling bearings and bearings in industrial machines under light and medium load</li> </ul> |
| <b>BULL HV EXTRA PLUS</b>  |                                                                                                                                                                                                   | > 250                    | 32, 46                                 |                                                                                                        | <ul style="list-style-type: none"> <li>• Includes the properties of BULL HV EXTRA with an even higher viscosity index</li> <li>• Hydraulic systems of mobile machines that experience temperature changes, such as machines that are used in refrigerated chambers or temperature-controlled locations</li> <li>• Demulsibility and filterability</li> <li>• Hydrolytic and thermal stability</li> </ul>                                                                                                                                                                                                                                                            |



mineral oil



synthetic oil



biodegradable oil



## HYDRAULIC SYSTEM OILS

| PRODUCT                       | QUALITY LEVEL                                                                                                                                          | INDEX VISCOSITY ISO 2909 | ISO VG 40°C, cSt ISO 3448 | APPLICATIONS                                                                                                                                                                                                                      | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BULL HV MICROFILTER LONG LIFE | ISO 6743-4 HV<br>DIN 51524 partes 2 y 3 (HLP) y (HVLP)<br>AFNOR NFE 48603-HV<br>CINCCINNATY<br>LAMB-MILACRON P-68, 69, 70<br>DENISON HF-2, HF-1 y HF-0 | > 164                    | 46                        | <ul style="list-style-type: none"><li>• High pressure hydraulic systems operating over a wide range of operating temperatures</li></ul>                                                                                           | <ul style="list-style-type: none"><li>• Semi-synthetic hydraulic oil, formulated from selected base oils and selected base oils and antioxidant additives, anti-wear, and anti-foaming additives that give it an optimum performance in industrial and mobile hydraulic systems</li><li>• High viscosity index. Excellent shear stability</li><li>• Ash free. Zinc free</li><li>• Hydraulic systems of mobile machines that temperature changes, e.g. machines in refrigerated machines used in refrigerated chambers or temperature-controlled locations</li></ul> |
| HIDRAULIC HFC                 | ISO 6743-4 HFC<br>UNE-EN ISO 12922:2020<br>AFNOR NF E 48.603 HFC                                                                                       | ----                     | 46                        | <ul style="list-style-type: none"><li>• Systems operating in fire or high temperature zones: Aluminium and plastic extrusion, foundry machinery, hydraulic hammers and presses for forging, hydraulic systems in mining</li></ul> | <ul style="list-style-type: none"><li>• Water-glycol based hydraulic oil specifically developed for industrial hydraulics with a specifically developed for industrial hydraulic systems with fire risk</li><li>• Compatibility with materials used in hydraulic systems</li><li>• Excellent filterability</li><li>• Not for use in systems with magnesium alloy mechanisms due to the violent reaction</li></ul>                                                                                                                                                   |
| BULL HV MICROFILTER LONG LIFE | ISO 6743/4 HV<br>DIN 51524 Partes 2 y 3 (HLP y HVLP)<br>AFNOR NFE 48603-HV<br>CINCCINNATI P68, P69, P70<br>DENISON HF-0, HF-1, HF-2                    | <164                     | 46                        | <ul style="list-style-type: none"><li>• Systems High pressure hydraulic systems operating in a wide range of working temperatures, such as machines in cold rooms or temperature-controlled rooms</li></ul>                       | <ul style="list-style-type: none"><li>• Semi-synthetic oil with high viscosity index, with antioxidant, anti-wear and anti-foaming additives</li><li>• Excellent shear stability. Zinc free</li><li>• Long-life properties. High service life due to its semi-synthetic character</li><li>• High chemical stability</li></ul>                                                                                                                                                                                                                                       |

## ACCESSORIES



mineral oil



**synthetic oil**



**biodegradable oil**



# GEAR OILS

## elesa GEAR IND

Formulated with mineral oils, synthetic and biodegradable bases depending on the application and needs, and premium additives that aim to reach the friction points in order to first lubricate and then protect.

When formulating our gear oils, we at elesa thoroughly study the important parameters such as:

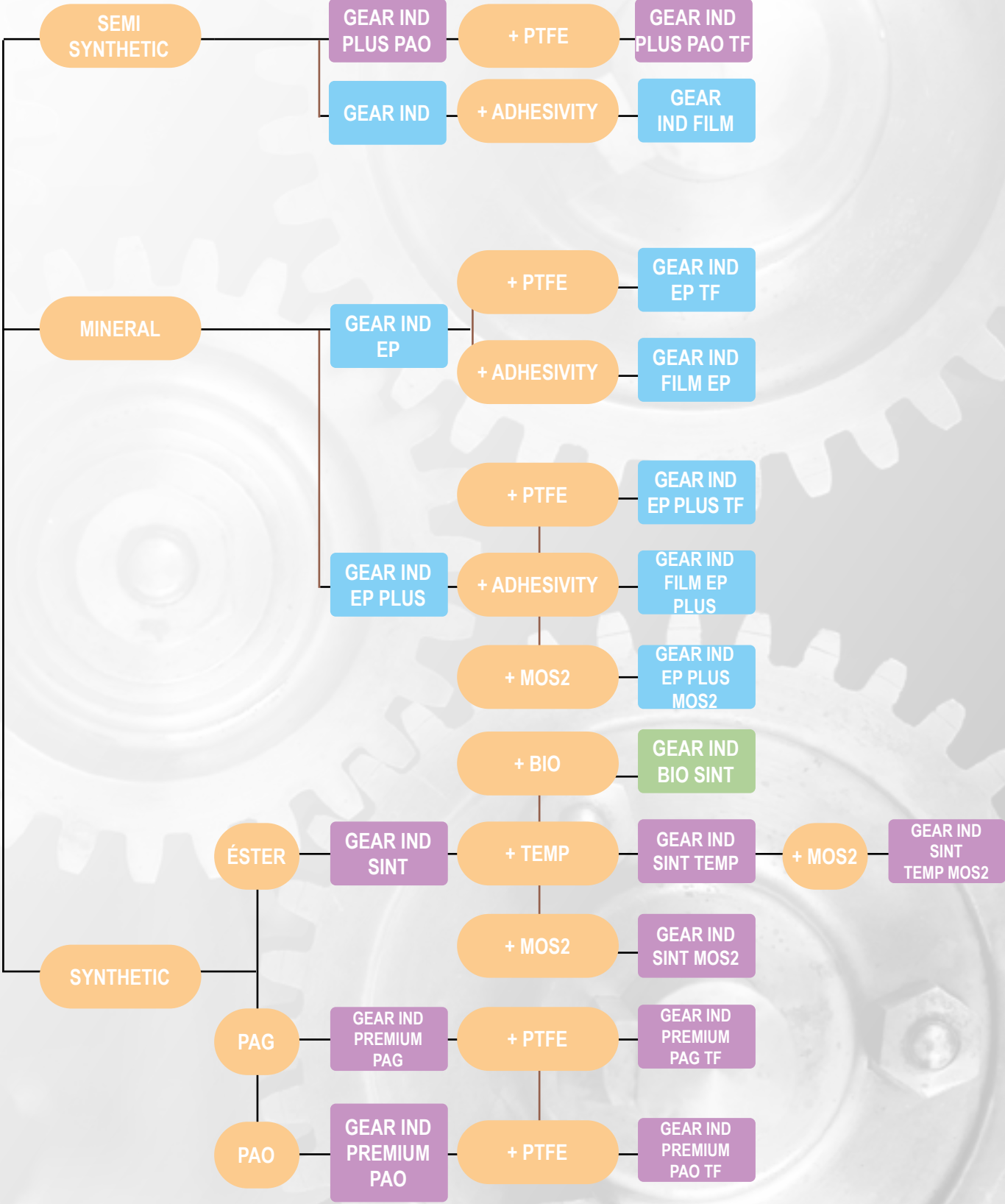
- **Speed**
- **Impact load**
- **Adhesion**
- **Operating Temperature**
- **Component Material**
- **Working Environment**
- **Solid Additives**

All our oils are of high quality and protect against corrosion, reduce the acidity generated by the use of oils and prevent foaming on the surface.

Our products meet quality standards:

- **ISO 12925-1:2018**
- **DIN 51 517 Parte 3 CLP**
- **U.S. Steel 224**
- **AGMA 9005**
- **Cincinnati Milacron P-34/P-35/P-59/P-63/P-74/P-76/P-77/ P-78**





# GEAR LUBRICANTS

| PRODUCT              | QUALITY LEVEL                                                                                                                                                               | ISO VG<br>40°C, cSt<br>ISO 3448 | APPLICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GEAR IND<br>BIO SINT | ISO/TR 3498 L-CKC<br>DIN 51517 part. 3 CLP-E<br>OECD 301-B<br>US STEEL 224                                                                                                  | 100                             | Gears:<br>• Sprocket<br>• Helical<br>• Double helical<br>• Hypoid<br>• Helical bevel<br>• Straight bevel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"> <li>• Biodegradable &gt;70%</li> <li>• Stability to hydrolysis</li> <li>• Durability up to 10 times longer than mineral oils</li> <li>• Minimal evaporation which means minimal consumption</li> <li>• Optimum anti-wear protection</li> <li>• Reduced maintenance costs and higher productivity</li> <li>• Miscible with mineral oils</li> <li>• High adhesion to metal surfaces and good EP properties</li> <li>• Lubricant film resistance at high temperature</li> </ul> |
|                      |                                                                                                                                                                             | 150                             | Gearboxes subjected to overloads where the tenacity of the lubricating film at high temperatures is vital. Bearings and Bearings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| GEAR IND             | SO-6743-6 e ISO<br>12925-1 CKB<br>AGMA 9005/E02<br>DIN 51.517 part. 2<br>(CL-46 a 680)                                                                                      | 46, 68, 100, 150                | <ul style="list-style-type: none"> <li>• Systems of Gear Systems without special requirements</li> <li>• Inverted tooth chains and roller chains</li> <li>• Plain bearings and bearings operating at working at medium speeds and loads</li> </ul>                                                                                                                                                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>• With corrosion inhibitors, anti-wear, anti-rust and anti-foaming agents</li> <li>• Thermal resistance</li> <li>• Contains demulsibility properties, preventing emulsion formation with water</li> <li>• Fatigue resistance</li> </ul>                                                                                                                                                                                                                                  |
|                      |                                                                                                                                                                             | 220, 320, 460                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| GEAR IND FILM        | ISO-6743-6 e ISO<br>12925-1 CKB<br>DIN 51.517 part. 2<br>(CL-46 a 680)<br>AGMA 9005/E02                                                                                     | 460                             | <ul style="list-style-type: none"> <li>• Variant with the same properties as GEAR IND but with additional additives which give the oil to have high greasiness, adhesiveness and stringiness. No sagging</li> <li>• Especially for components where high adhesion is required and no high EP is required</li> <li>• Ensures good surface lubrication at all times, even at the top of the gears and keeps them lubricated at all times before re-engagement</li> <li>• Highly resistant to water washout, hot water, salt water, acids and alkalis</li> </ul>                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                      |                                                                                                                                                                             | 900                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                      |                                                                                                                                                                             | 4000                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| GEAR IND EP          | ISO 6743-6<br>ISO 12925-1 CKC<br>ISO/TR 3498 CKC<br>DANOBAT ISO 100-460<br>DIN 51517 part.3<br>(CLP 46-680)<br>AGMA 250.04<br>CINCINNATI MILACRON P47 y P50<br>US STELL 224 | 46, 68, 100, 150                | <ul style="list-style-type: none"> <li>• Non-temperature high load gearbox</li> <li>• Contains anti-wear and extreme pressure additives</li> <li>• Meets DANOBAT GROUP quality levels</li> <li>• Ensures good surface lubrication at all times, even in the high at all times, even in the high part of the gears, and keeps them gears, and keeps them lubricated</li> <li>• Good de-emulsion capacity, avoiding the formation of emulsions with water</li> <li>• Excellent resistance to oxidation and corrosion</li> <li>• Low foaming and fast deaeration</li> <li>• High compatibility with seals and elastomers</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                      |                                                                                                                                                                             | 220, 320, 460                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                      |                                                                                                                                                                             | 680, 1000                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| GEAR IND FILM EP     | ISO/TR 3498 CKC<br>DIN 51502 CGLP<br>AGMA 250.04<br>US STEEL 224<br>CINCINNATI MILACRON P-47 y P-50                                                                         | 46, 68, 100, 150                | <ul style="list-style-type: none"> <li>• Variant with the same properties as GEAR IND EP and additional additives which provide high adhesiveness and filamentability. No does not sag</li> <li>• Gearboxes where it is necessary that the oil does not leave the not to leave the tooth at any time</li> <li>• High shear strength</li> <li>• Highly resistant to water washout, hot water, salt water, acids and alkalis</li> </ul>                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                      |                                                                                                                                                                             | 220, 320, 460                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                      |                                                                                                                                                                             | 680, 1000                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |



mineral oil



synthetic oil



biodegradable oil



## GEAR LUBRICANTS

| PRODUCT                    | QUALITY LEVEL                                                                                                                                                               | ISO VG<br>40°C, cSt<br>ISO 3448 | APPLICATIONS                                                                                                                                                                                                                                                                                                                                                                                                               | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GEAR IND<br>EP TF          | ISO 6743-6<br>ISO 12925-1 CKC<br>ISO/TR 3498 CKC<br>DANOBAT ISO 100-460<br>DIN 51517 part.3 (CLP 46-680)<br>AGMA 250.04<br>CINCINNATI<br>MILACRON P47 y P50<br>US STEEL 224 | 46, 68, 100, 150                | High load gears:<br>• Toothed wheel<br>• Helical<br>• Double helical<br>• Hypoid<br>• Helical bevel<br>• Straight bevel<br>• Planetary<br>• Worm wheel worm<br>• Bearings and Bearings                                                                                                                                                                                                                                     | • Variant with the same properties as GEAR IND EP and additional addition of micronised PTFE, which acts as a solid additive and reduces the coefficient of friction compared to the previous ones (lower energy cost)<br>• Low friction coefficient<br>• Excellent resistance to oxidation and corrosion<br>• Formation of a thin adherent film that avoids the dreaded dry starts<br>• Reduces stick-slip problems<br>• Excellent dirt resistance. Water repellent<br>• Recommended for lubrication of highly loaded enclosed gear systems or very high power units in heavy duty industrial applications<br>• Gearboxes where there are many stops and starts             |
|                            |                                                                                                                                                                             | 220, 320, 460                   |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                            |                                                                                                                                                                             | 680                             |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| GEAR IND<br>PLUS PAO       | ISO L-CKC (100-460)<br>ISO 3448 y DIN 51519<br>AGMA 9005.E02<br>US STEEL 224<br>DAVID BROWN S1.53.101<br>CINCINNATI<br>MILACRON P47 y P50<br>DIN 51517 part.3 (CLP 46-680)  | 46, 68, 100, 150                | • Loaded gears:<br>-Sprocket<br>-Helical<br>-Double helical<br>-Hypoid<br>-Helical bevel<br>-Straight bevel<br>-Planetary<br>-Worm and wheel set<br><br>• Inverted tooth chains and roller chains<br>• Plain bearings and bearings operating at medium speeds and loads speeds and loads at higher temperature<br>• Continuous operation up to 120°C                                                                       | • Semi-synthetic lubricant with higher viscosity index and more resistant to high temperatures than mineral oils<br>• Minimal sludge and oxidation products<br>• Zinc free<br>• Minimal evaporation and therefore minimal consumption and replenishment<br>• Low freezing point, better starting<br>• Optimum wear protection<br>• Excellent compatibility with elastomers and seals<br>• Miscibility and compatibility with mineral oils makes it easy to change to semi-synthetic oil<br>• Its low detergency avoids the problems of lifting old sludge that may have accumulated in machinery that has worked for a long time with mineral oil<br>• High temperature tips |
|                            |                                                                                                                                                                             | 220, 320                        |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                            |                                                                                                                                                                             | 480                             |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| GEAR IND<br>PLUS PAO<br>TF | DIN 51517 part.3 (CLP 46-680)                                                                                                                                               | 46, 68, 100, 150                | • Same properties as GEAR IND PLUS PAO and additional addition of micronised PTFE, which acts as a solid additive and reduces the coefficient of friction compared to the previous ones (lower energy cost)<br>• Formation of a thin adherent film avoids the dreaded dry starts<br>• Reduces stick-slip problems<br>• Gearboxes and differentials where more temperature is generated and there are many starts and stops |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                            |                                                                                                                                                                             | 220, 320, 460                   |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                            |                                                                                                                                                                             | 480                             |                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| GEAR IND<br>SINT           | DIN 51517 part,3 (CLP-E)<br>AGMA 9005.E02(S)<br>US STEEL 224<br>DAVID BROWN S1.53.101                                                                                       | 220, 460                        | • Gearboxes industrial<br>• Hypoid gears<br>• Steel and cement plants                                                                                                                                                                                                                                                                                                                                                      | • 100% synthetic ester type oil with excellent E.P. characteristics<br>• High adhesion to metal surfaces<br>• Freezing point of -32°C<br>• Durability of the order of 10 times higher than mineral oils<br>• Stability to hydrolysis in very corrosive environments<br>• Toughness of the lubricant film at high temperatures<br>• Minimal evaporation. Optimum anti-wear protection<br>• Extraordinary chemical and thermal stability                                                                                                                                                                                                                                       |

**biodegradable oil**



# GEAR LUBRICANTS

| PRODUCT                                | QUALITY LEVEL                                                                                                                                                                                        | ISO VG<br>40°C, cSt<br>ISO 3448 | APPLICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GEAR IND<br/>SINT TEMP</b>          | DIN 51517 part.3<br>(CLP-E)<br>AGMA 9005.E02(S)<br>US STEEL 224<br>DAVID BROWN<br>S1.53.101                                                                                                          | 150                             | <ul style="list-style-type: none"> <li>Gears:               <ul style="list-style-type: none"> <li>- Sprocket</li> <li>- Helical</li> <li>- Double helical</li> <li>- Hypoid</li> <li>- Helical bevel</li> <li>- Straight bevel</li> <li>- Planetary</li> </ul> </li> <li>- Worm wheel and sprocket</li> <li>- Inverted tooth chains and rollers</li> <li>- Plain and rolling bearings operating at medium speeds and loads with higher and temperature</li> <li>- Gears where film toughness is critical</li> <li>- Equipment that is difficult to access</li> </ul> | <ul style="list-style-type: none"> <li>Variant with the same properties as GEAR IND SINT but with plus additional additives for continuous temperature extremes</li> <li>Very thermally stable</li> <li>No sludge and lacquer formation</li> <li>Outstanding chemical and thermal stability</li> <li>Corrosive environments</li> <li>High flash point and very low volatility</li> <li>Miscibility and compatibility with mineral oils</li> </ul>                                                                                                                                                                                                                                                                   |
|                                        |                                                                                                                                                                                                      | 220, 460                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>GEAR IND<br/>PREMIUM PAO</b>        | ISO L-CKC (46-680)<br>DIN 51517 part.3<br>CLP-HC 46-680)<br>AGMA 9005.E02<br>US STEEL 224<br>DAVID BROWN<br>S1.53.101<br>FLENDER BA-7300<br>CINCINNATI<br>MILACRON<br>P34 a P80                      | 32                              | <ul style="list-style-type: none"> <li>Gears:               <ul style="list-style-type: none"> <li>- Sprocket</li> <li>- Helical</li> <li>- Double helical</li> <li>- Hypoid</li> <li>- Helical bevel</li> <li>- Straight bevel</li> <li>- Planetary</li> <li>- Worm and wheel set</li> </ul> </li> <li>- Gearboxes and Differentials where there are very high temperature and high load</li> <li>- Bearings</li> </ul>                                                                                                                                              | <ul style="list-style-type: none"> <li>Specific additives to prevent "micropitting" in gearboxes and differential cases</li> <li>Formulated with a combination of additives that ensure excellent lubrication in severe conditions of extreme temperatures, low speeds and high shock loads</li> <li>Difficult to access equipment, where oil changes are labour intensive</li> <li>Absence of sludge and oxidation products</li> <li>Minimal evaporation</li> <li>Good start-up at low temperatures</li> <li>Excellent demulsibility due to its non-polar character and very high corrosion protection</li> <li>Very good compatibility with elastomers and gaskets</li> <li>Miscible with mineral oils</li> </ul> |
|                                        |                                                                                                                                                                                                      | 46, 68, 100, 150                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                        |                                                                                                                                                                                                      | 220, 320, 460                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                        |                                                                                                                                                                                                      | 680, 1000                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>GEAR IND<br/>PREMIUM PAO<br/>TF</b> | U.S. Steel 224<br>AGMA 9005.E02<br>DIN 51.517part.3<br>(CLP-HC-46 a 680)<br>David Brown<br>S1.53.101<br>Clasificación ISO<br>L-CKC (46 a 680)<br>Cincinnati Milacron<br>P34 a P80<br>FLENDER BA-7300 | 32                              | <ul style="list-style-type: none"> <li>Gearboxes and Differentials where there are very high temperature and high load</li> <li>Bearings</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                   | <ul style="list-style-type: none"> <li>Variant with the same excellent properties as GEAR IND PREMIUM PAO plus additional micronised PTFE additive, which acts as a solid additive and lowers the coefficient of friction</li> <li>Excellent lubrication under severe conditions of extreme temperatures, low speeds and high loads</li> <li>Formation of a thin adherent film that prevents dreaded dry starts</li> <li>Reduces stick-slip problems</li> <li>Lower energy costs</li> <li>Anti-friction characteristics necessary for long oil and gear life</li> <li>Highly loaded gearboxes and high vibration; reduces noise level, friction and wear</li> </ul>                                                 |
|                                        |                                                                                                                                                                                                      | 46, 68, 100, 150                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                        |                                                                                                                                                                                                      | 220, 320, 460                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                        |                                                                                                                                                                                                      | 680, 1000                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



# GEAR LUBRICANTS

| PRODUCT                    | QUALITY LEVEL                                                      | ISO VG<br>40°C, cSt<br>ISO 3448 | APPLICATIONS                                                                                                                                                                                                                                                                                            | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------|--------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GEAR IND<br>PREMIUM PAG    | DIN 51517 part.3<br>CLP-PG<br>AGMA 9005.<br>E02(S)<br>US STELL 224 | 32                              | <ul style="list-style-type: none"><li>Gears:<ul style="list-style-type: none"><li>- Sprocket</li><li>- Helical</li><li>- Double helical</li><li>- Hypoid</li><li>- Helical bevel</li><li>- Straight bevel</li><li>- Planetary</li><li>- Worm wheel and worm wheel</li></ul></li></ul>                   | <ul style="list-style-type: none"><li>Synthetic polyglycol base, with incredible performance at high temperatures and extreme pressure</li><li>Reduces maintenance costs</li><li>High temperature stability (high and low)</li><li>Minimal volatility</li><li>No sludge and protection against oxidation</li><li>High Viscosity Index and low freezing point</li><li>High lubricating power and load capacity</li><li>Excellent corrosion and rust protection</li><li>Compatible with all types of seals and elastomers Nitrile rubber (NBR), Fluoro-Silicone, Vinyl-Methyl Polysiloxane (Q) or PTFE are especially recommended for high temperature</li><li>Compatible with non-ferrous materials</li><li>Exceeds 10,000 working hours at 100°C in enclosed gear units</li></ul> |
|                            |                                                                    | 68                              |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                            |                                                                    | 100                             |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                            |                                                                    | 150                             |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                            |                                                                    | 220                             |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| GEAR IND<br>PREMIUM PAG TF |                                                                    | 320                             | <ul style="list-style-type: none"><li>Gearboxes and Differentials where very high temperature and very high load</li><li>Bearings</li><li>Of great interest in all difficult to access equipment accessibility, where oil changes involve a high labour costs</li><li>Worm and worm gearboxes</li></ul> | <ul style="list-style-type: none"><li>Variant with the same properties as GEAR IND PREMIM PAG and additional addition of micronised PTFE, which acts as a solid additive and decreases the coefficient of friction.</li><li>For highly loaded gearboxes and high vibrations, reducing noise level and wear.</li><li>Formation of a thin adhesive film prevents the dreaded dry starts.</li><li>Reduces the problems of stick-slip</li><li>Lower energy costs.</li><li>Anti-friction characteristics necessary for a long life of oil and mechanisms.</li></ul>                                                                                                                                                                                                                    |
|                            |                                                                    | 100                             |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                            |                                                                    | 150                             |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                            |                                                                    | 220                             |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                            |                                                                    | 320                             |                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |



mineral oil



synthetic oil



biodegradable oil

# GUIDE OILS, CABLES AND CHAINS

This product block covers a wide range of applications for guides, cables and chains. Formulated with mineral oils, synthetic and biodegradable bases depending on the application and needs, and premium additives that aim to reach the friction points in order to first lubricate and then protect.

When formulating our guide, cable and chain oils, we at elesa thoroughly study the important parameters such as:

- Adhesion.
- Drip resistance.
- Static and dynamic coefficient of friction with speed.
- Penetrability.
- Solid additives.

**elesa GUÍAS**

They provide linear movement, prevent the stick-slip effect, avoid jumps between the two sliding parts and make this sliding continuous.

See our Cutting Fluids catalogue for our range of MACHINING CTRO GUIDES.

See our catalogue of Non-toxic Products for our range of H1 GUIDES.

| PRODUCT       | NATURE  | ADHERENCE                                                                           | ANTI-DRIP                                                                           | REDUCTION FRICTIONS                                                                  | PENETRABILITY                                                                         | EXTREME PRESSURE                                                                      |
|---------------|---------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| GUÍAS         | MINERAL |  |  |  |  |  |
| GUÍAS EP      | MINERAL |  |  |  |  |  |
| GUÍAS EP FILM | MINERAL |  |  |  |  |  |

● EXCELLENT
 ● GOOD
 ● REGULAR
 ● NOT SUITABLE



## GUIDE LUBRICANTS

| PRODUCT       | EP. (Kg) | VISCOSITY<br>40°C, cSt | FREEZING POINT /<br>FLASH POINT, °C | APPLICATIONS                                                                                  | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------|----------|------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GUÍAS         | 250      | 68                     | -12 / 225                           | • Lubrication of vertical, oblique and horizontal guides                                      | • Ultra-refined paraffinic mineral bases<br>• Excellent anti-wear, adhesion and lubricity characteristics. Avoid Stick-Slip effect in sliding movements<br>• Do not sag and extend the life of the mechanisms.<br>• Insulate against humidity and protect against corrosion<br>• Good wetting capacity                                                                                                                                                                                                                                                                                                                                      |
|               | 250      | 100                    | -12 / 225                           |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 250      | 150                    | -12 / 225                           |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 250      | 220                    | -9 / 235                            |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 250      | 320                    | -9 / 240                            |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 250      | 460                    | -9 / 240                            |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| GUÍAS EP      | 315      | 68                     | -12 / 225                           | • Lubrication of vertical, oblique and horizontal guides<br><br>With extra protection EP.     | • Ultra-refined paraffinic mineral bases<br>• With E.P. extreme pressure sulphur-phosphorus type additives, which gives them superior performance and greater environmental protection than those based on lead additives<br>• Excellent anti-wear, adhesion and lubricity characteristics. Avoid Stick-Slip effect in sliding movements<br>• They do not sag and extend the life of the mechanisms<br>• Insulate against humidity and protect against corrosion<br>• Good wetting capacity<br>• Greater adhesiveness and filamentousness, so it has less sagging and allows working on vertical guides due to its anti-drip behaviour      |
|               | 315      | 100                    | -12 / 225                           |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 315      | 150                    | -12 / 225                           |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 315      | 220                    | -9 / 235                            |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 315      | 460                    | -9 / 240                            |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 315      | 480                    | -9 / 240                            |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| GUÍAS EP FILM | 315      | 68                     | -12 / 225                           | • Specific for lubrication of vertical, oblique and horizontal guides<br>• Extra adhesiveness | • Ultra-refined paraffinic mineral bases<br>• With E.P. extreme pressure sulphur-phosphorus type additives, which gives them superior performance and greater environmental protection than those based on lead additives<br>• Excellent anti-wear, adhesion and lubricity characteristics. They avoid Stick-Slip effect in sliding movements<br>• They do not sag and extend the life of the mechanisms<br>• Insulate against humidity and protect against corrosion<br>• Good wetting capacity<br>• Greater adhesiveness and filamentousness, so it has less sagging and allows working on vertical guides due to its anti-drip behaviour |
|               | 315      | 100                    | -12 / 225                           |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 315      | 150                    | -12 / 225                           |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 315      | 220                    | -9 / 235                            |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 315      | 460                    | -9 / 240                            |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|               | 315      | 480                    | -9 / 240                            |                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



**mineral oil**

**synthetic oil**

**biodegradable oil**



Chain oils formulated to allow penetration in those points of reduced size, difficult access and subjected to high loads.

### Other options:

**For non-temperature chains with anti-drip action, the WIRE cable range can be recommended. For chains without temperatures, drip-free action and extreme high pressure, the most recommended product is **elesa GEAR IND 460 FILM**.**

**For NSF-H1 compliant alternatives, please see our non-toxic industry catalogue. For alternatives in the agricultural sector, such as chainsaw oil, see our agricultural catalogue. [agricultural](#).**

| PRODUCT                       | NATURE                  | ADHERENCE                                                                           | ANTI-DRIP                                                                           | REDUCTION FRICTIONS                                                                   | PENETRABILITY                                                                         | SOLIDS |
|-------------------------------|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|--------|
| CHAIN BIO SINT                | SYNTHETIC BIODEGRADABLE |  |  |  |  | —      |
| BLACK LUBE CHAIN              | MINERAL                 |  |  |  |  | —      |
| CHAIN SINT                    | SYNTHETIC               |  |  |  |  | —      |
| CHAIN SINT TEMP               | SYNTHETIC               |  |  |  |  | —      |
| CHAIN SINT SS                 | SYNTHETIC               |  |  |  |  | —      |
| CHAIN SINT PLUS MOS2          | SYNTHETIC               |  |  |  |  | MoS2   |
| CHAIN SINT PLUS               | SYNTHETIC               |  |  |  |  | —      |
| CHAIN SINT PLUS TF            | SYNTHETIC               |  |  |  |  | PTFE   |
| CHAIN 320 SINT PLUS           | SYNTHETIC               |  |  |  |  | —      |
| CHAIN 254 SINT PLUS           | SYNTHETIC               |  |  |  |  | —      |
| CHAIN 400 SINT PLUS MOS2      | SYNTHETIC               |  |  |  |  | —      |
| CHAIN 140 SINT PLUS MOS2      | SYNTHETIC               |  |  |  |  | MoS2   |
| CHAIN 140 SINT PLUS MOS2 TEMP | SYNTHETIC               |  |  |  |  | MoS2   |
| CHAIN 254 SINT PLUS MOS2      | SYNTHETIC               |  |  |  |  | MoS2   |
| CHAIN 400 SINT PLUS MOS2      | SYNTHETIC               |  |  |  |  | MoS2   |
| CHAIN SINT PLUS TEMP          | SYNTHETIC               |  |  |  |  | —      |
| CHAIN SINT CATAFORESIS        | SYNTHETIC               |  |  |  |  | —      |

● EXCELLENT
 ● GOOD
 ● REGULAR
 ● NOT SUITABLE



## CHAIN LUBRICANTS

| PRODUCT             | VISCOSITY INDEX | VISCOSITY INDEX 40°C, cSt | WORKING TEMPERATURE °C                   | APPLICATIONS                                                                                                                                                                                                                                                      | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------|-----------------|---------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CHAIN BIO 140 SINT  | 140             | 140                       | -25 / 260                                | <ul style="list-style-type: none"><li>• Rames chains</li><li>• Rails and guides</li><li>• Compatible with nitrile, fluoro-carbon, silicone and sodium polyacrylate elastomers</li><li>• Oven chains</li></ul>                                                     | <ul style="list-style-type: none"><li>• Synthetic base type 100% ester</li><li>• More than 70% biodegradable in 28 days according to the Sealed Vessel Test</li><li>• High adhesion. No dripping or splashing</li><li>• Excellent oxidation resistance and very high hydrolytic stability</li><li>• Very low consumption and no formation of fumes and odours</li><li>• Regeneration capacity of new oil over old oil. Reduces the formation of lacquers on the chain</li><li>• High detergent effect</li><li>• Better cold start of the machine</li><li>• Protects the mechanisms against wear and tear and extends their useful life</li></ul> |
| CHAIN 22 SINT       | 110             | 22                        | -18 / 180                                | <ul style="list-style-type: none"><li>• Furnace chains and mechanisms subjected to high temperature</li></ul>                                                                                                                                                     | <ul style="list-style-type: none"><li>• Contains synthetic ester type bases</li><li>• High adhesion. No dripping or splashing</li><li>• Excellent oxidation and evaporation stability</li><li>• Good penetrability and wetting power to access difficult to reach points, especially in chains</li><li>• Protects against corrosion. Very important in ovens where products with high water content evaporate</li></ul>                                                                                                                                                                                                                          |
| CHAIN 46 SINT       | 110             | 46                        | -35 / > 180 (open)<br>-35 / 300 (closed) |                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| CHAIN 100 SINT      | 110             | 104                       | -20 / 225                                |                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| CHAIN 150 SINT      | 114             | 150                       | -20 / 225                                |                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| CHAIN 250 SINT      | 120             | 270                       | -20 / 225                                |                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| CHAIN 250 SINT SS   | 120             | 240                       | -20 / 225                                |                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| CHAIN 250 SINT TEMP | 120             | 220                       | -20 / 225                                |                                                                                                                                                                                                                                                                   | CHAIN 250 SINT variant for high temperatures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| BLACK LUBE CHAIN    | --              | --                        | -30 / 150                                | <ul style="list-style-type: none"><li>• Cables</li><li>• Chains</li><li>• Pins, hinges and bearings of small dimensions as well as precision mechanisms</li><li>• Forklift truck chain</li><li>• EP loads</li><li>• Plastics industry</li><li>• Foundry</li></ul> | <ul style="list-style-type: none"><li>• Provided with anti-rust, anti-wear, extreme pressure (E.P.) and freezing point depressant additives that offer excellent results in the life of the chains in service</li><li>• Its studied formulation allows penetration in those points of reduced size, difficult access and subjected to high loads</li><li>• High resistance to dust and water jet washing</li><li>• Low freezing point</li></ul>                                                                                                                                                                                                  |

**biodegradable oil**



## CHAIN LUBRICANTS

| PRODUCT                       | VISCOSITY INDEX | VISCOSITY INDEX 40°C, cSt | WORKING TEMPERATURE °C | APPLICATIONS                                                                                                                                                                                                                                                          | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------|-----------------|---------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CHAIN 120 SINT PLUS           | 111             | 120                       | -35 / 240              | <ul style="list-style-type: none"> <li>Lubricant for oven chain wheels, paint drying and others</li> <li>Lubrication systems automatic and spray lubrication systems</li> </ul>                                                                                       | <ul style="list-style-type: none"> <li>100% ester base oil</li> <li>Excellent high and low temperature properties</li> <li>Very stable to decomposition and oxidation at high temperature</li> <li>High lubricating power; no lacquer formation</li> <li>Excellent regeneration capacity of new oil over old oil</li> </ul>                                                                                                                                                                                                                                                                                                                          |
| CHAIN 320 SINT PLUS           | 100             | 320                       | -10 / 240              |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CHAIN 120 SINT PLUS TF        | 111             | 120                       | -10 / 240              |                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>CHAIN 120 SINT variant with extra PTFE content</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| CHAIN 120 SINT PLUS MOS2      | 111             | 120                       | -35 / 240              |                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Contains Molybdenum Disulphide which acts as a safety lubricant</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CHAIN 254 SINT PLUS           | 140             | 254                       | -30 / 260              | <ul style="list-style-type: none"> <li>Rames, rails and guide chains</li> <li>Compatible with elastomers such as nitrile, fluorocarbon, silicone and sodium polyacrylate</li> <li>Oven chains</li> </ul>                                                              | <ul style="list-style-type: none"> <li>100% ester type synthetic bases</li> <li>Longer working time at high temperature; 0 residues</li> <li>Excellent oxidation resistance</li> <li>High detergent effect. Cleans old oils and reduces residues</li> <li>Protects mechanisms from wear and tear and extends their life</li> <li>Anti-drip effect</li> <li>Excellent behaviour with elastomers such as nitrile, fluorocarbon, silicone and polyacrylate, in decreasing order of preference</li> </ul>                                                                                                                                                |
| CHAIN 400 SINT PLUS           | 145             | 400                       | -30 / 260              |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CHAIN 140 SINT PLUS MOS2      | 140             | 140 (base oil)            | -30 / 260              | <ul style="list-style-type: none"> <li>Oven chains, bearings, rollers, rails and gears</li> <li>Rames in the textile industry</li> </ul>                                                                                                                              | <ul style="list-style-type: none"> <li>100% ester type synthetic bases</li> <li>Contains Molybdenum disulphide which acts as a safety lubricant</li> <li>Longer working time at high temperature</li> <li>Excellent oxidation resistance</li> <li>Detergent power. Cleans old oils and reduces the generation of residues</li> <li>Protects mechanisms from wear and tear and extends their life</li> <li>Anti-drip effect</li> <li>Excellent performance with elastomers nitrile, fluoro-carbon, silicone and polyacrylate, in decreasing order of preference</li> <li>Excellent oxidation resistance and very high hydrolytic stability</li> </ul> |
| CHAIN 254 SINT PLUS MOS2      | 140             | 254 (base oil)            | -30 / 260              |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CHAIN 400 SINT PLUS MOS2      | 145             | 400 (base oil)            | -30 / 260              |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CHAIN 140 SINT PLUS MOS2 TEMP | 140             | 140 (base oil)            | -30 / 260              |                                                                                                                                                                                                                                                                       | <ul style="list-style-type: none"> <li>Variant of elesa® CHAIN 140 SINT PLUS MOS2 with a higher content of Molybdenum Disulphide. It can withstand temperature peaks of up to temperature peaks up to 450°C</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                               |
| BLACK LUBE CHAIN              | --              | --                        | -30 / 150              | <ul style="list-style-type: none"> <li>Cables</li> <li>Chains</li> <li>Pins, hinges, bearings and bearings of small dimensions as well as precision mechanisms</li> <li>Forklift truck chain</li> <li>EP loads</li> <li>Plastics industry</li> <li>Foundry</li> </ul> | <ul style="list-style-type: none"> <li>Provided with anti-rust, anti-wear, extreme pressure (E.P.) and freeze point depressant additives that offer excellent results in the life of the chains in service</li> <li>Its studied formulation allows penetration in those points of reduced size, difficult access and subjected to high loads</li> <li>High resistance to dust and water jet washing.</li> <li>Low freezing point</li> </ul>                                                                                                                                                                                                          |



## CHAIN LUBRICANTS

| PRODUCT                    | VISCOSITY INDEX | VISCOSITY INDEX 40°C, cSt | WORKING TEMPERATURE °C | APPLICATIONS                                                                                                                                                                                                                                                            | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------|-----------------|---------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CHAIN 350 SINT PLUS TEMP   | 140             | 350                       | -35 / 280              | <ul style="list-style-type: none"><li>• Fibreglass insulation manufacturing lines</li><li>• Paint oven lines</li><li>• Surface painting and lacquering lines</li><li>• Textile stenter chains with working temperatures of 250°C</li><li>• Heated steel belts</li></ul> | <ul style="list-style-type: none"><li>• 100% ester base oil</li><li>• Excellent high and low temperature properties</li><li>• Excellent decomposition and oxidation stability at high temperature</li><li>• High lubricating power and no lacquer formation</li><li>• Excellent regeneration capacity of new oil over old oil</li></ul>                                                                                |
| CHAIN 400 SINT PLUS TEMP   | 145             | 400                       | -25 / 280              |                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                        |
| CHAIN 320 SINT CATAFORESIS | 232             | 320                       | -36 / 220              | <ul style="list-style-type: none"><li>• Lubrication of paint oven chains by cataphoresis</li></ul>                                                                                                                                                                      | <ul style="list-style-type: none"><li>• Synthetic glycol type bases</li><li>• Completely free of silicones</li><li>• Good temperature stability</li><li>• Low volatility</li><li>• No formation of oxidation products in the chains</li><li>• Excellent rust protection</li><li>• elesa® CHAIN 320 SINT CATAFORESIS TF contains PTFE which acts as a safety lubricant and lowers the coefficient of friction</li></ul> |



**mineral oil**

**synthetic oil**

**biodegradable oil**



**WIRE**

impermeability and non-drip properties of the product.

protects against the aggressive environment.

Other options:

Our Cutting Fluids catalogue offers soluble and pure lubricants for wire and rod drawing operations.

| PRODUCT          | NATURE                  | ADHERENCE | ANTI-DRIP | REDUCTION FRICTIONS | PENETRABILITY | EXTREME PRESSURE |
|------------------|-------------------------|-----------|-----------|---------------------|---------------|------------------|
| WIRE BIO EUROMAR | SYNTHETIC BIODEGRADABLE | ●         | ●         | ●                   | ●             | ●                |
| WIRE EUROMAR 32  | MINERAL                 | ●         | ●         | ●                   | ●             | ●                |
| WIRE EUROMAR     | SYNTHETIC               | ●         | ●         | ●                   | ●             | ●                |



**EXCELLENT**

**GOOD**

REGULAR

**NOT SUITABLE**



## CABLE LUBRICANTS

| PRODUCT          | ISO VG            | WORKING TEM-<br>PERATURE °C | APPLICATIONS                                                                                                                                                                                                                                                                                                                    | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------|-------------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| WIRE BIO         | Fluid<br>unctuous | -30 / 150                   | <ul style="list-style-type: none"><li>• Lubrication of steel wire ropes in ports and ships, forestry, agriculture, mining</li><li>• Wherever it is necessary to visualise the condition of the wire rope</li><li>• Withstands water and marine environments</li></ul>                                                           | <ul style="list-style-type: none"><li>• Biodegradable ester type synthetic bases</li><li>• Contains E.P. additives, rust inhibitors, corrosion inhibitors and adhesion agents</li><li>• High tack and very high penetrability with excellent squeeze-off resistance</li><li>• Penetrates and impregnates the cable core</li><li>• Provides effective greasing with a clean and neat appearance on lubricated cables and mechanisms</li><li>• Keeps sheave surrounds clean and free of splashes</li><li>• Total protection against wear, corrosion and rust</li><li>• Extends regreasing times</li></ul> |
| WIRE SINT<br>480 | 480               | -27 / 200                   | <ul style="list-style-type: none"><li>• Lubrication of steel ropes in steel mills, public works, alternative energies, graphic arts graphic arts, iron, chemical and steel industry</li><li>• Wherever it is necessary to visualise the condition of the cable</li><li>• Lubrication of cables in marine environments</li></ul> | <ul style="list-style-type: none"><li>• Contains E.P. additives, rust inhibitors, corrosion inhibitors and adhesive agents</li><li>• Penetrates and impregnates the cable core</li><li>• Provides effective greasing with a clean and neat appearance of the cables</li><li>• Keeps sheave surrounds clean, free from splashes</li><li>• Facilitates the work of dosing and greasing because it is oil</li><li>• Maximum protection against wear, corrosion and rust</li><li>• Does not polymerise at high temperatures or under Ultra Violet light</li></ul>                                           |



**mineral oil**



**synthetic oil**



**aceite biodegradable**



**elesa AIR**

It reduces the formation of carbon deposits and dissipates the temperature produced in the movement.



| PRODUCT   | QUALITY LEVEL                                                    | INDEX<br>VISCOSITY<br>ISO 2909 | ISO VG<br>40°C, cSt<br>ISO 3448      | WORK<br>HOURS | APPLICATIONS                                                                | PROPERTIES                                                                                                                                                                                                                                                                                                                                           |
|-----------|------------------------------------------------------------------|--------------------------------|--------------------------------------|---------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AIR BASIC | DIN-51506-VD<br>DIN-51524,<br>PART 2<br>AFNOR NFE<br>48603 (HM)  | 97                             | 32, 46, 68,<br>100, 150              | 2000          | • Screw compressors,<br>rotary vane or<br>reciprocating and<br>vacuum pumps | • Specially manufactured ash-free and<br>zinc-free oil<br>• High oxidation stability<br>• High rust protection<br>• No foaming and easy demulsibility<br>• Systems requiring low carbonaceous deposits<br>with good wear protection<br>• Servo valves requiring special filterability<br>characteristics                                             |
| AIR PLUS  | DIN-51506-VDL<br>DIN-51524,<br>PART 2<br>AFNOR NFE<br>48603 (HM) | 97                             | 32, 46, 68,<br>100, 150,<br>220, 320 | 3000          |                                                                             | • Contains synthetic ester type bases<br>• High adhesion. No dripping or splashing<br>• Excellent oxidation and evaporation stability<br>• Good penetrability and wetting power<br>for access to hard-to-reach places,<br>especially on chains<br>• Protects against corrosion. Very important in<br>ovens where products with high water<br>content |



# OILS FOR AIR COMPRESSORS / AIR VACUUM PUMPS

| PRODUCT                | QUALITY LEVEL                                                   | INDEX<br>VISCOSITY<br>ISO 2909 | ISO VG<br>40°C,<br>cSt<br>ISO 3448     | WORK<br>HOURS | APPLICATIONS                                                                                                                                                       | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|-----------------------------------------------------------------|--------------------------------|----------------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AIR SINT PLUS</b>   | <b>DIN-51506-VCL y VDL.</b><br><br><b>ISO 6743-3L-DAC y DAJ</b> | 90 ,<br>> 150                  | 46, 68,<br>100,<br>150,<br>220         | 6000-<br>8000 | <ul style="list-style-type: none"> <li>Screw, rotary vane or reciprocating compressors and vacuum pumps with continuous duty or long oil change periods</li> </ul> | <ul style="list-style-type: none"> <li>100% synthetic ester based oil</li> <li>High oxidation resistance and good corrosion protection</li> <li>Wear protection and minimal evaporation</li> <li>No deposits on valves, vanes and pistons. Excellent deaeration</li> <li>High detergency, avoiding that the lacquers generated with use from scratching the screw</li> <li>Specially designed for MATTEL vane compressors</li> </ul>                                                                                                                                                                                                                                                                                                                                                                              |
| <b>AIR PREMIUM PAO</b> | <b>DIN-51506-VCL y VDL</b>                                      | 130                            | 46, 68,<br>100,<br>150,<br>220,<br>320 | 6000-<br>8000 | <ul style="list-style-type: none"> <li>Screw, rotary vane or reciprocating compressors and vacuum pumps</li> </ul>                                                 | <ul style="list-style-type: none"> <li>100% Polyalphaolefin (PAO) base with high-tech additives. Oxidation stability</li> <li>Lower consumption due to low volatility and high flash and autoignition points</li> <li>Excellent deaeration and demulsibility, reducing fluid contamination and increasing compressor efficiency</li> <li>Good anti-wear protection, thus allowing to work at high pressures and does not reduce the life of the compressor</li> <li>Very low level of carbon deposits. Increased safety in the work of the compressor. High corrosion protection</li> <li>Very good compatibility with seals and paints</li> <li>Full compatibility with polycarbonate filter balls. Tested on Hoerbiger filters</li> <li>Reduces electrical energy consumption and lowers noise level</li> </ul> |

# GAS COMPRESSOR OILS

|                               |                                                       |     |                      |               |                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------|-------------------------------------------------------|-----|----------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AIR PREMIUM PAO BIOGAS</b> | <b>DIN-51506.</b><br><br><b>ISO 6743-3L-DAJ</b>       | 140 | 46, 100,<br>150, 220 | 6000-<br>8000 | <ul style="list-style-type: none"> <li>Oil for rotary compressors, piston, breathing air vacuum pumps, biogas</li> <li>Suitable for: Natural Gas, Carbon Monoxide, Ethylene, Methane-Bio Gas, Propane, Butdiene, Butylene, Butane, VCM-Vinyl Chloride Monomer, Propylene, Ammonia. Safe gases: Air, Helium, Nitrogen, Carbon Dioxide-Dry Carbon Dioxide..</li> </ul> | <ul style="list-style-type: none"> <li>With Polyalphaolefin (PAO) bases blended with ester and high-tech additives</li> <li>Oxidation stability</li> <li>Lower consumption due to low volatility and high flash and auto-ignition points</li> <li>Corrosion protection of mechanisms</li> <li>Very high optimum service life of the oil</li> <li>Very low solubility of hydrocarbon gases, which prevents loss of oil viscosity</li> <li>Good compatibility with seals and paints</li> <li>Optimum anti-wear protection of cylinder and piston rings due to a more resistant lubricating film</li> <li>Excellent deaeration and demulsivity</li> <li>Virtually no tendency to carbon and lacquer formation</li> <li>Reduces electrical energy consumption and lowers noise levels. Prevents oil oxidation</li> </ul>                                                                                                                          |
| <b>AIR SINT PFCV</b>          | <b>DIN-51506 - VCL.</b><br><br><b>ISO 6743-3L-DAJ</b> | 113 | 46, 100              | 6000-<br>8000 | <ul style="list-style-type: none"> <li>High and medium speed reciprocating compressors.</li> <li>Oxygen, air, aggressive gases.</li> <li>Low pressure pumps.</li> </ul>                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>100% perfluorinated polyether base</li> <li>Low molecular weight and controlled viscosity with low vapour pressure</li> <li>Inert fluid against most chemical reagents. Indispensable when the pump works in direct contact with gases such as UF6, F2, PCI3, BF3.</li> <li>Provides outstanding performance in HIGH VACUUM applications, especially systems exposed to aggressive gases</li> <li>Excellent compatibility with metals, plastics and elastomers</li> <li>Good resistance to aqueous and non-aqueous solvents</li> <li>High dielectric properties and good radiation stability</li> <li>Does not polymerise when exposed to oxygen, ionising radiation or accelerated subatomic particles</li> <li>The system remains FREE OF VARNISHES and fluid decomposition deposits</li> <li>Its high resistance to oxidation avoids explosion risks. Compatible with gaskets and paints</li> </ul> |



## OILS FOR INDUSTRIAL REFRIGERATION COMPRESSORS

| PRODUCT           | QUALITY LEVEL                                                                               | ISO VG<br>40°C, cSt<br>ISO 3448       | WORK<br>HOURS | APPLICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                              | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------|---------------------------------------------------------------------------------------------|---------------------------------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AIR POLAR         | DIN 51503 KA y<br>KC NORMA<br>WL-825 C                                                      | 32, 46,<br>68                         | 3000          | <ul style="list-style-type: none"><li>Industrial refrigeration compressors with refrigerants: Ammonia (R-717), Butane (R-600), Propane (R-290), Carbon dioxide (R-744) and chlorinated gases such as R12 and R22</li></ul>                                                                                                                                                                                                                | <ul style="list-style-type: none"><li>Highly refined and hydrotreated 100% naphthenic bases</li><li>Low flocculation point with Freon, reducing the precipitation of wax deposits at points such as valves or evaporator (wax free)</li><li>Very low freezing point</li><li>Good chemical stability and oxidation resistance</li><li>Maximum protection for moving compressor parts. Resistant lubricant film</li><li>Protects the mechanisms even in high temperature conditions and high pressures at the end of the compression stage in valves and discharge points</li></ul>                                                                                                                                                                                                                                                                                      |
| AIR AQB POLAR     | UNE-EN<br>ISO21469:2006<br>DIN 51503 KAA<br>y KC                                            | 32, 68,<br>100                        | 6000-<br>8000 | <ul style="list-style-type: none"><li>Industrial refrigeration compressors with refrigerants: R-717, ammonia, R-40 or R-22. It works perfectly with HCFC's refrigerants: R-11, R-12 &amp; 13, R-113 114 123-401A and B-402A and B-R408A R409A</li><li>R401A-500-602-503</li><li>Miscible with many types of refrigerants, especially Ammonium (NH3)</li></ul>                                                                             | <ul style="list-style-type: none"><li>100% Polyalphaolefin (PAO) base with high-tech additives</li><li>Oxidation stability</li><li>Lower consumption due to low volatility and high flash and auto-ignition points</li><li>Excellent separation of air (deaeration) and water (demulsibility), thus reducing contamination of the fluid and increasing the effectiveness of the compressor</li><li>Good anti-wear protection, which allows working at high pressures and does not reduce the life of the compressor</li><li>Very low level of carbon deposits. Increased safety in compressor operation</li><li>High corrosion protection</li><li>Very good compatibility with seals and paints</li><li>Full compatibility with polycarbonate filter balls. Tested on Hoerbiger filters</li><li>Reduces electrical energy consumption and lowers noise level</li></ul> |
| AIR SINT POLAR EV | UNE-EN<br>ISO21469: 2006<br>DIN 51 503: KB<br>y KD of<br>refrigeration<br>oils<br>A-A-50634 | 22,32,<br>46, 68,<br>100, 150,<br>170 | 6000-<br>8000 | <p>Industrial refrigerant compressors:</p> <p>HFC type: R-448 A, R-404 A, R-422 D, R-134A, R-507, 509 A/B and 410 A, R-407 A and R-407 C. HFO type: R-1234 YF, 1234ZE and 1233ZE , R-449A, 452A and 513 HFCs, CFCs, HFOs and mixtures.</p> <p>Other gases: SUVA TMHP 62 (replacing CFC 502 Propane (R-290), Isobutane (R-600A), and Propylene (R-1270) CO2 (R-744) Partially fluorinated gases in heat pumps: R-245FA, 236A and 227EA</p> | <ul style="list-style-type: none"><li>100% polyester base coat designed to meet the specific requirements of manufacturers of refrigeration compressors working in deep-freezing</li><li>Excellent anti-corrosion, anti-wear and anti-rust properties</li><li>Prevents separation in cold lines by preventing waxes from flocculating</li><li>Good thermal and chemical stability with low tendency to form deposits in evaporation systems (valves and discharge gates)</li><li>Excellent compatibility with elastomer materials, seals, filters and paints present: EPDM, NYLON-6, NBR, HNBR, PTFE, etc.</li></ul>                                                                                                                                                                                                                                                   |





# HEAT TRANSFER FLUIDS

The lubricant should be chosen according to the temperature we need to reach and according to its miscibility and viscosity.

## elesa TÉRMICO

Our range is based on highly refined mineral oils, preferably hydrogenated and direct cutting, synthetic or alkylbenzene oils, all of which are designed to withstand high temperatures.

## FLUIDS FOR HEAT TRANSFER SYSTEMS

| PRODUCT                    | QUALITY LEVEL            | INDEX VISCOSITY ISO 2909 | ISO VG 40°C, cSt ISO 3448 | WORK HOURS | APPLICATIONS                                                                                                                                                                                      | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------|--------------------------|--------------------------|---------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TÉRMI­CO                   | ISO 6743 -Q DIN 51522    | 95                       | 22,32                     | - 10 / 280 | • Boilers, heat generators, heating systems                                                                                                                                                       | • Ultra-refined paraffinic based oils (hydrogenated and dewaxed)<br>• High heat transmission coefficient providing faster and more economical heating<br>• High thermal stability at working temperature, with very low oxidation tendency<br>• Low vapour pressure at working temperature, allowing to work at atmospheric pressure; avoids cavitations and load losses<br>• Protects the circuit from corrosion and keeps the mechanisms lubricated<br>• Valid for industrial tanks where heating and cooling are carried out in the same equipment                                                                                                                                                                  |
|                            |                          | 95                       | 68                        | 10 / 320   | • Closed heat transfer circuits with forced recirculation                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                            |                          | 95                       | 320                       | -7 / 300   |                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|                            |                          | 87                       | 460, 600                  | -7 / 340   | • Heat transfer baths without forced recirculation                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| TÉRMI­CO SINT              | SO 6743 -12-Q DIN 51522  |                          | 16, 22                    | - 40 / 340 | • Boilers, heat generators, very high or very low temperature heating systems<br>• Closed heat transfer circuits with forced recirculation where there is no contact with the contact with oxygen | • 100 % synthetic bases of alkylbenzene nature<br>• Excellent anti-corrosion, anti-wear and anti-rust properties<br>• High heat transmission coefficient providing faster and more economical heating<br>• High thermal stability at working temperature, high inertia to oxidation<br>• It protects the circuit from corrosion and keeps the mechanisms lubricated, avoiding decantations<br>• Valid for industrial tanks where it is heated and cooled in the same equipment<br>• High boiling and flash point                                                                                                                                                                                                       |
| TÉRMI­CO SINT BAJA PRESIÓN | ISO 6743 -12-Q DIN 51522 |                          | 32                        | -3 / 345   | • Boilers, heat generators, heating systems<br>• Non-pressurised or low-pressure recirculating closed circuits with recirculation, without contact with oxygen                                    | • High thermal stability at working temperature, high inertia to oxidation<br>• High thermal transmission coefficient providing faster heating<br>• High boiling and flash point which helps to have a low volatility<br>• Excellent detergency that avoids the decantation of oxidation products that could produce overheating points                                                                                                                                                                                                                                                                                                                                                                                |
| TÉRMI­CO 144 POLAR         | ISO 6743 -12-Q DIN 51522 |                          | 16, 22                    | - 32 / 115 | • Refrigeration systems. Heat pumps. Gas water heaters and hot water heaters                                                                                                                      | • Monoethylene glycol base fluid that facilitates heat transfer and reduces corrosion and freezing of the circuit<br>• Very high heat transfer coefficient, providing much faster and more economical heating<br>• Suitable for all types of materials commonly used and compatible with the metals and alloys present in cooling circuits: aluminium, copper, cast iron, brass and the most modern alloys<br>• Wide temperature range<br>• Increases the life and efficiency of the circulation pump. High thermal conductivity<br>• Prevents the formation of sludge and slurry. Prevents clogging of the cooling circuit<br>• Excellent corrosion protection. Protects the cooling circuit for long periods of time |



mineral oil



synthetic oil



biodegradable oil



# GREASE

At elesa we have different ranges of greases formulated to cover all types of mechanisms and working conditions. For this, all types of oils and thickeners are used, which are combined to achieve optimum performance for each application.

The different alternatives are grouped into ranges classified according to the thickener.

**elesa ALFA, LITHIUM, SUPERLIT, ARIS**

**Multi-purpose lithium soap greases with excellent thermal stability and a tough lubricating film that prevents metal corrosion.**

**elesa MOLYT**

**Multipurpose lithium soap greases and a range of solid additives, including molybdenum disulphide.**

**elesa GRAF**

### Multi-purpose lithium soap greases and graphite as a solid additive.

**elesa COMPLEX**

### Multi-purpose lithium soap greases and graphite as a solid additive.

**elesa LUBE**

**Multipurpose greases mixed lithium and calcium soap and different additive content.**

**elesa CAPLEX**

### Calcium sulphonate multipurpose greases with different additive content.

**elesa NODROP**

### Synthetic infusible thickening greases, without dropping point and different additive content.



**mineral oil**



**synthetic oil**



- biodegradable oil



# LUBRICATING GREASES: LITHIUM SOAP

| PRODUCT           | QUALITY LEVEL |              | WELDING<br>LOAD EP<br>(KG) | NLGI                  | WORKING<br>TEMPERATURE,<br>°C | APPLICATIONS                                                                                           | PROPERTIES                                                                                                                                                                                                                                                                                                                    |
|-------------------|---------------|--------------|----------------------------|-----------------------|-------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | ISO<br>6743   | DIN<br>51502 |                            |                       |                               |                                                                                                        |                                                                                                                                                                                                                                                                                                                               |
| ALFA              | L-XB-CEB      | KPK-20       | 200                        | 000,00,0,<br>1,2,3,4  | -20 a 120<br>POINTS OF<br>140 | • Bearings, bushings, rollers, couplings                                                               | • Multi-purpose grease with excellent resistance to oxidation<br>• Good mechanical stability                                                                                                                                                                                                                                  |
| ALFA EP           | L-XB-CEB      | KPK-20       | 315                        | 000,00,0,<br>1,2,3,4  | -20 a 120<br>POINTS OF<br>140 | • Spherical plain bearings, roller bearings                                                            | • Multi-purpose grease with ALPHA properties and extreme pressure                                                                                                                                                                                                                                                             |
| ALFA SINT         | L-XE-CEA      | KPK-50       | 400                        | 0, 2                  | -54 a 120                     | • Ski resorts, snowmobiles: Bearings, bearings, rollers, couplings                                     | • Multi-purpose PAO based grease, developed for general purpose use at low temperatures                                                                                                                                                                                                                                       |
| LITHIUM EP        | L-XB-CEB      | KPK-20       | 250                        | 000,00,0,<br>1,2,3    | -20 a 120<br>POINTS OF<br>140 | • Bearings, bearings, rollers, couplings                                                               | • Colour greenish brown. Multipurpose grease with high load carrying capacity and excellent stability                                                                                                                                                                                                                         |
| SUPERLIT          | L-XB-CEB      | KPK-20       | 200                        | 000,00,0,<br>1,2,3    | -20 a 120<br>POINTS OF<br>140 |                                                                                                        | • Green colour. Multi-purpose grease with excellent resistance to oxidation                                                                                                                                                                                                                                                   |
| SUPERLIT EP       | L-XB-CEB      | KPK-20       | 400                        | 000,00,0,<br>1,2,3    | -20 a 120<br>POINTS OF<br>140 |                                                                                                        | • Multi-purpose grease with excellent oxidation resistance and very high EP<br>• Very good mechanical stability                                                                                                                                                                                                               |
| SUPERLIT EP FILM  | L-XB-CEB      | KPK-20       | 400                        | 000,00,0,<br>1,2,3    | -20 a 120<br>POINTS OF<br>140 | • Ball joints, Seals, couplings                                                                        | • Multi-purpose grease with the same properties as SUPERLIT EP but with added adhesion to the mechanisms                                                                                                                                                                                                                      |
| SUPERLIT WHITE    | L-XB-CEB      | KPK-20       | 400                        | 2                     | -20 a 120<br>POINTS OF<br>140 | • Bearings, bearings, rollers, couplings                                                               | • Multipurpose grease with the same properties as SUPERLIT EP, but white in colour                                                                                                                                                                                                                                            |
| ARIS TF           | L-XB-CEB      | KPK-20       | 500                        | 000,00,0,<br>1,2, 2/3 | -20 a 120<br>POINTS OF<br>140 | • Severe service, high loads.<br>• Bearings, joints, cables, open gears                                | • Multi-purpose grease with PTFE additives, which gives it a very low coefficient of friction and acts as a solid safety lubricant                                                                                                                                                                                            |
| MOLYT             | L-XB-CEB      | KPK-20       | 250                        | 000,00,0,<br>1,2,3    | -20 a 120<br>POINTS OF<br>140 | • Automatic systems in automotive and Public works                                                     | • Multipurpose Grease with Molybdenum Disulphide as solid EP additive                                                                                                                                                                                                                                                         |
| MOLYT EP          | L-XB-CEB      | KPK-20       | 620                        | 00,0,1,2,3            | -20 a 120<br>POINTS OF<br>140 | • Bearings with high loads, vibrations and shocks.<br>• Steel industry, mining, public works           | • Multipurpose grease with a very high content of Molybdenum Disulphide as a solid lubricant<br>• Extra anti-rust and rust inhibitor additives                                                                                                                                                                                |
| MOLYT 034 GEAR EP | L-XB-CEB      | KPK-20       | 400                        | 00/000                | -20 a 120                     | • Gearboxes, gears, lifetime lubrication                                                               | • Semi-fluid grease with synthetic bases that give it high chemical and oxidation stability<br>• Reduces up to 25% the temperature in the reducer<br>• Adhesiveness and anti-wear protection                                                                                                                                  |
| MOLYT 064         | L-XB-CEB      | KPK-20       | 800                        | 2                     | -20 a 120<br>POINTS OF<br>140 | • Bearings with very high shock loads<br>• Very severe services<br>• CV joints<br>• Humid environments | • Very high load capacity<br>• Excellent protection against corrosion, wear and oxidation, even in saline environments<br>• High molybdenum disulphide content<br>• 20 to 30 times longer life than conventional grease                                                                                                       |
| GRAF              | L-XB-CEB      | KPK-20       | 250                        | 0, 2, 3               | -20 a 120<br>POINTS OF<br>140 | • Ball joints, suspension arms, hoses, etc.                                                            | • Multipurpose lithium grease with graphite as a solid additive, which acts as a natural anti-friction                                                                                                                                                                                                                        |
| GRAF SINT         | L-XB-CEB      | KPK-20       | 400                        | 2                     | -20 a 120<br>POINTS OF<br>140 | • Bearings where there is a lot of EP and low temperatures                                             | • Multipurpose grease based on PAO and mineral oil, with Extreme Pressure additives and graphite as a solid lubricant<br>• High anti-rust, anti-rust, anti-wear and EP with shock load resistance<br>• Graphite prevents abrasive dust particles from getting inside the mechanisms in dusty environments. dusty environments |



# LUBRICATING GREASES: LITHIUM COMPLEX SOAP

| PRODUCT            | QUALITY LEVEL |              | WELDING<br>LOAD EP<br>(KG) | NLGI           | WORKING<br>TEMPERATURE<br>°C  | APPLICATIONS                                                                                                      | PROPERTIES                                                                                                                                                                                                                                        |
|--------------------|---------------|--------------|----------------------------|----------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | ISO 6743      | DIN<br>51502 |                            |                |                               |                                                                                                                   |                                                                                                                                                                                                                                                   |
| COMPLEX<br>TECH    | L-XB-<br>CEB  | KPK-20       | 400                        | 000,00,0,1,2,3 | -20 a 160<br>POINTS OF<br>180 | • Electric motors and brakes,<br>wheel bearings, rollers,<br>joints, mills, etc                                   | • High load capacity and high<br>dropping point<br>• With anti-rust and anti-wear<br>additives<br>• Resistant to water washout                                                                                                                    |
| COMPLEX<br>MOS2    | L-XB-<br>CEB  | KPK-20       | 500                        | 1, 2           | -20 a 160<br>POINTS OF<br>180 | • Metal to metal contacts<br>in steel industry, cement,<br>mining, OP                                             | • COMPLEX TECH variant with<br>the same properties and added<br>Molybdenum Bisulphide, which<br>increases resistance to shock<br>loads                                                                                                            |
| COMPLEX<br>SINT    | L-XE-<br>CEA  | KPK-40       | 400                        | 00, 2          | -40 a 160                     | • Ski resorts, snowmobiles:<br>Bearings, bearings, rollers,<br>couplings, electric motors                         | • Special grease formulated with<br>PAO synthetic oil, which allows<br>operation at very low<br>temperatures<br>• Longer lubrication periods than<br>a mineral grease<br>• Resistance to shock loads as<br>well as water washout                  |
| COMPLEX<br>SINT TF | L-XE-<br>CEA  | KPK-40       | 400                        | 2, 3           | -40 a 160                     | • Ski resorts, snowmobiles:<br>Bearings, bearings, rollers,<br>couplings, highly loaded<br>seals, electric motors | • COMPLEX SINT variant with<br>PTFE additive to reduce the<br>wear of friction elements<br>• Severe work on mechanisms<br>subjected to long periods of<br>relubrication in humid<br>environments or in alkaline<br>vapours, acids or cutting oils |
| COMPLEX<br>WIND    | L-XB-<br>CEB  | KPK-20       | 400                        | 1/ 2           | -40 a 160                     | • Wind turbines                                                                                                   | • Grease formulated with PAO<br>synthetic bases specifically to<br>withstand sudden changes in<br>temperature without lowering<br>performance<br>• Free of solid lubricants<br>• High shock loads<br>• Outstanding corrosion<br>protection        |



mineral oil



synthetic oil



biodegradable oil



## LUBRICATING GREASES: ALUMINIUM SOAP

| PRODUCT                   | QUALITY LEVEL |               | WELDING<br>LOAD EP<br>(KG) | NLGI         | WORKING<br>TEMPERATURE<br>°C | APPLICATIONS                                                                                                                                                                                                                                                                            | PROPERTIES                                                                                                                                                                                                                                                   |
|---------------------------|---------------|---------------|----------------------------|--------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISO 6743                  | DIN<br>51502  |               |                            |              |                              |                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                              |
| ALPLEX<br>VISCOGEL<br>091 | ---           | ---           | 620                        | GEL<br>FLUID | -10 a 120                    | <ul style="list-style-type: none"><li>• Open gears, gearboxes</li><li>• Machinery where there are dripping problems with traditional lubricants, such as overhead cranes, conveyor belt reducers, power transmissions, geared motors in rolling mills, straightening machines</li></ul> | <ul style="list-style-type: none"><li>• Excellent wear protection, both sliding and rolling-crash</li><li>• High pumpability. pumpability</li><li>• High adhesiveness</li><li>• API GL-4; DIN 51517 : PARTE 3 CLP</li><li>USS: 224; AGMA: 9005/D94</li></ul> |
| ALPLEX<br>003 OGL         | L-XACiB       | OGP-<br>FK-10 | 800                        | 0/00         | -10 a 120                    | <ul style="list-style-type: none"><li>• Open gears, girth gears with spraying systems</li></ul>                                                                                                                                                                                         | <ul style="list-style-type: none"><li>• Very high viscosity base oil. viscosity</li><li>• Slow moving</li><li>• Very high workability</li><li>• Very good water resistance</li><li>• Very high extreme pressure</li><li>• High pumpability</li></ul>         |
| ALPLEX<br>005 OGL         | L-XACiB       | OGP-<br>FK-10 | 0/00                       | 0, 2         | -10 a 120                    |                                                                                                                                                                                                                                                                                         | <ul style="list-style-type: none"><li>• Soap-based fluid grease, highly pumpable with spraying systems</li><li>• Contains Extreme Pressure additives</li><li>• Very high workability</li><li>• Very good water resistance</li></ul>                          |

## LUBRICATING GREASES: MIXED SOAP Lithium + BIO CALCIUM

| PRODUCT  | QUALITY LEVEL |               | WELDING<br>LOAD EP<br>(KG) | NLGI     | WORKING<br>TEMPERATURE, °C | APPLICATIONS                                                                                                     | PROPERTIES                                                                                                                                     |
|----------|---------------|---------------|----------------------------|----------|----------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
|          | ISO 6743      | DIN<br>51502  |                            |          |                            |                                                                                                                  |                                                                                                                                                |
| ALFA BIO | L-XDD-<br>HB  | KPEN-<br>40   | 200                        | 000,0, 2 | -40 a 140                  | • Public works. Works with risk of spillage into the environment<br><br>• Bearings, bearings, rollers, couplings | • Biodegradable<br>• High resistance to water washout, water works and oxidation<br>• Easy pumpability. Excellent stability to mechanical work |
| GRAF BIO | L-XDD-<br>HB  | KP-<br>FEN-40 | 250                        | 0/00     | -10 a 140                  |                                                                                                                  | • Biodegradable<br>• Contains solid additives that can withstand shock loads and E.P<br>• High wear protection                                 |

## LUBRICATING GREASES: MIXED LITHIUM + CALCIUM SOAP

| PRODUCT       | QUALITY LEVEL |              | WELDING<br>LOAD EP<br>(KG) | NLGI                  | WORKING<br>TEMPERATURE<br>°C  | APPLICATIONS                                                                                                                          | PROPERTIES                                                                                                                                                                                                                           |
|---------------|---------------|--------------|----------------------------|-----------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | ISO 6743      | DIN<br>51502 |                            |                       |                               |                                                                                                                                       |                                                                                                                                                                                                                                      |
| LUBE BETA     | L-XBCIB       | KPK-20       | 250                        | 00,0,1/0,<br>1,2,4    | -20 a 120                     | <ul style="list-style-type: none"><li>• Bearings with water.</li><li>• Systems requiring grease to provide a sealing effect</li></ul> | <ul style="list-style-type: none"><li>• Excellent washing and water resistance properties</li><li>• High adhesion and anti-rust properties</li></ul>                                                                                 |
| LUBE WATER    | L-XDDHB       | KPK-20       | 400                        | 00,0,1,2              | -20 a 120<br>POINTS OF<br>140 | <ul style="list-style-type: none"><li>• All types of mechanisms with water</li><li>• High EP loads</li></ul>                          | <ul style="list-style-type: none"><li>• Excellent washing and water resistance properties</li><li>• Very high adhesion, anti-corrosion and anti-rust.</li><li>• High extreme pressure</li><li>• Withstands up to 50% water</li></ul> |
| LUBE WATER TF | L-XDDHB       | KPK-20       | 400                        | 000,00,0,<br>1/0, 1,2 | -20 a 120<br>POINTS OF<br>140 | <ul style="list-style-type: none"><li>• All types of mechanisms with water</li><li>• High EP loads</li></ul>                          | <ul style="list-style-type: none"><li>• LUBE WATER variant with solid PTFE additive that reduces the coefficient of friction, provides higher water resistance and improves shock load behaviour</li></ul>                           |



## LUBRICATING GREASES: ALUMINIUM SOAP

| PRODUCT            | QUALITY LEVEL |           | WELDING<br>LOAD EP<br>(KG) | NLGI            | WORKING<br>TEMPERATURE<br>°C  | APPLICATIONS                                                            | PROPERTIES                                                                                                                                                                                                  |
|--------------------|---------------|-----------|----------------------------|-----------------|-------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | ISO 6743      | DIN 51502 |                            |                 |                               |                                                                         |                                                                                                                                                                                                             |
| LUBE<br>WATER GRAF | L-XBCIB       | KPFK-20   | 500                        | 2               | -20 a 120<br>POINTS OF<br>140 | • Bearings, rolling bearings,<br>CV joints which are outdoors           | • Special paraffinic based lubricating<br>grease with additivated lithium/calcium<br>soap thickener, which gives it excellent<br>washing and water resistance<br>properties<br>• Very high extreme pressure |
| LUBE WIRE          | L-XBCIB       | KPFK-20   | 400                        | FLUID<br>GREASE | -20 a 120                     | • Cables and chains with high<br>loads<br>• Centralised or spray sytems | • High adhesion and extreme pressure<br>• Resistant to working with water and<br>with very high anti-rust protection                                                                                        |

## LUBRICATING GREASES: CALCIUM SULPHONATE SOAP

| PRODUCT            | QUALITY LEVEL |              | WELDING LOAD<br>EP (KG) | NLGI  | WORKING<br>TEMPERATURE<br>°C  | APPLICATIONS                                                                                                                                                                         | PROPERTIES                                                                                                                                                                                                                                                         |
|--------------------|---------------|--------------|-------------------------|-------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                    | ISO 6743      | DIN<br>51502 |                         |       |                               |                                                                                                                                                                                      |                                                                                                                                                                                                                                                                    |
| CAPLEX<br>OP       | L – XBEIB     | KPP-20       | 400                     | 1,2,3 | -20 a 160                     | <ul style="list-style-type: none"><li>• Bearings, bearings, rollers, couplings</li><li>• Mechanisms working with water</li><li>• Spherical plain bearings, roller bearings</li></ul> | <ul style="list-style-type: none"><li>• High base oil viscosity</li><li>• Excellent water and high E.P. behaviour</li><li>• High rust protection</li></ul>                                                                                                         |
| CAPLEX<br>OP TF    | L – XBEIB     | KPP-20       | 400                     | 1,2,3 | -20 a 160                     |                                                                                                                                                                                      | <ul style="list-style-type: none"><li>• Same properties as CAPLEX OP with PTFE as a solid additive that reduces wear on friction surfaces and increases water resistance</li></ul>                                                                                 |
| CAPLEX<br>OP GRAF  | L – XBEIB     | KPP-20       | 400                     | 4     | -20 a 160                     | <ul style="list-style-type: none"><li>• Dual mass clutches</li></ul>                                                                                                                 | <ul style="list-style-type: none"><li>• With friction modifying additives, achieving uniform damping of vibrations coming from the engine</li><li>• High anti-wear and resistance to oxidation</li></ul>                                                           |
| CAPLEX<br>RPM      | L – XBEIB     | KPP-20       | 400                     | 1,2,3 | -20 a 160                     | <ul style="list-style-type: none"><li>• Bearings, bearings, rollers, couplings. Specific for high revolutions</li><li>• Mechanisms working with water</li></ul>                      | <ul style="list-style-type: none"><li>• High EP performance</li><li>• Adhesiveness, high loads</li><li>• Wide working temperature range</li></ul>                                                                                                                  |
| CAPLEX<br>SINT     | L-XBCEB       | KPK-40       | 400                     | 1,2,3 | -40 a 180                     | <ul style="list-style-type: none"><li>• Bearings, bearings, rollers, couplings</li><li>• Low and high temperature mechanisms</li></ul>                                               | <ul style="list-style-type: none"><li>• For systems requiring high adhesion at high speed</li><li>• High resistance to water washout</li><li>• Synthetic bases for increased stability and working temperature range</li><li>• Excellent wear protection</li></ul> |
| CAPLEX<br>SINT TF  | L-XBCEB       | KPK-40       | 400                     | 1,2,3 | -40 a 180                     |                                                                                                                                                                                      | <ul style="list-style-type: none"><li>• Grease with the same properties as CAPLEX SINT with PTFE as a solid additive to reduce wear on friction surfaces and increase wear on friction surfaces and increases water resistance</li></ul>                           |
| CAPLEX<br>038 FILM | L-XBCEB       | KPK-20       | 400                     | 2     | -20 a 160                     | <ul style="list-style-type: none"><li>• Open gears, cables, chains, guides</li><li>• Slow movements and heavy loads</li></ul>                                                        | <ul style="list-style-type: none"><li>• Very high MoS2 graphite content</li><li>• Excellent damping effect</li><li>• Extends the relubrication interval by 5 times</li><li>• Resistant to water, acids and alkalis</li><li>• Very high adhesiveness</li></ul>      |
| CAPLEX<br>040 FILM | L-XBCEB       | KPK-20       | 620                     | 2     | -20 a 160                     | <ul style="list-style-type: none"><li>• Open gears, cables, chains, guides</li><li>• Cranes and overhead cranes</li><li>• Medium-low speed bearings</li></ul>                        | <ul style="list-style-type: none"><li>• With micronised graphite</li><li>• Very high load capacity</li><li>• Extends the relubrication interval by 5 times</li><li>• Minimal dust adhesion</li></ul>                                                               |
| CAPLEX<br>140 FILM | L-XBCEB       | KPK-20       | 400                     | 2     | -20 a 160<br>POINTS OF<br>180 | <ul style="list-style-type: none"><li>• Open gears, cables, chains, guides</li><li>• Mechanisms at high temperatures</li></ul>                                                       | <ul style="list-style-type: none"><li>• Very high load capacity</li><li>• Very high temperatures</li><li>• Extends the relubrication interval by 5 times</li><li>• Free of solid additives</li></ul>                                                               |



# LUBRICATING GREASES: SYNTHETIC No dropping point

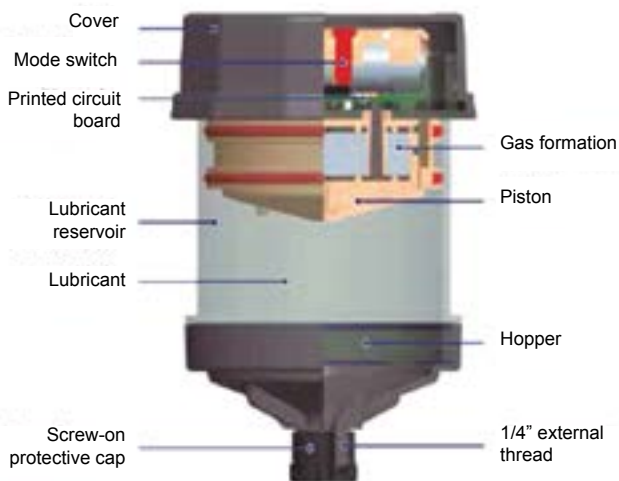
| PRODUCT                             | QUALITY LEVEL |              | WELDING<br>LOAD EP<br>(KG) | NLGI                  | WORKING<br>TEMPERATURE<br>°C  | APPLICATIONS                                                                                                                                                                                                                                    | PROPERTIES                                                                                                                                                                                                                                                                 |
|-------------------------------------|---------------|--------------|----------------------------|-----------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                     | ISO 6743      | DIN<br>51502 |                            |                       |                               |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                            |
| <b>NODROP<br/>011 SINT</b>          | L-XEDHB       | KPEP-60      | 200                        | 2                     | -75 a 150                     | <ul style="list-style-type: none"> <li>Bearings and mechanisms at high and very low temperatures</li> <li>Bearings and mechanisms greased for life</li> <li>Very high speed mechanisms</li> </ul>                                               | <ul style="list-style-type: none"> <li>100% synthetic oil</li> <li>Exceptional low temperature performance</li> <li>F.V. up to 1,000,000</li> </ul>                                                                                                                        |
| <b>NODROP<br/>011 SINT<br/>MoS2</b> | L-XEDHB       | KPEP-60      | 250                        | 2                     | -75 a 150                     |                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>NODROP 011 SINT variant with MoS2 as EP and safety lubricant</li> </ul>                                                                                                                                                             |
| <b>NODROP<br/>070</b>               | L-XDGEB       | KPFPU-40     | 500                        | 2                     | -35 a 225                     | <ul style="list-style-type: none"> <li>All types of mechanisms in contact with hydrocarbons and solvents</li> <li>Protection of seals and elastomers</li> </ul>                                                                                 | <ul style="list-style-type: none"> <li>Extreme High Pressure</li> <li>Very high and low temperatures</li> <li>No carbonaceous residues</li> </ul>                                                                                                                          |
| <b>NODROP<br/>070 MoS2</b>          | L-XBCEB       | KPFP-20      | 500                        | 2                     | -35 a 225                     | <ul style="list-style-type: none"> <li>All types of mechanisms in contact with hydrocarbons and solvents</li> <li>Protection of gaskets and elastomers</li> </ul>                                                                               | <ul style="list-style-type: none"> <li>Grease with the same properties as SINT 070, with the addition of Molybdenum Disulphide as a safety lubricant</li> <li>Very high EP</li> </ul>                                                                                      |
| <b>NODROP<br/>090 EP<br/>MoS2</b>   | L-XBCEB       | KPK-20       | 500                        | 1,2,3                 | -20 a 175<br>POINTS OF<br>200 | <ul style="list-style-type: none"> <li>Ball and roller bearings in steel mills, paper mills</li> <li>Bearings and worm and wheel gears</li> <li>Bearings in acidic, corrosive environments</li> <li>Chemical industry, cement plants</li> </ul> | <ul style="list-style-type: none"> <li>Excellent shock load protection</li> <li>Low speeds and medium-high loads</li> <li>High temperatures</li> </ul>                                                                                                                     |
| <b>NODROP<br/>090 EP<br/>TF</b>     | L-XBCEB       | KPK-20       | 400                        | 1,2,3                 | -20 a 175<br>POINTS OF<br>200 |                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>With PTFE which lowers the coefficient of friction and improves water behaviour</li> <li>Low speeds and medium-high loads</li> <li>High temperatures</li> </ul>                                                                     |
| <b>NODROP<br/>091 EP</b>            | KPF2P-20      | XBEFB-2      | 315                        | 2                     | -20 a 150<br>POINTS OF<br>180 | <ul style="list-style-type: none"> <li>Mechanisms subjected to occasional high temperatures. Non-infusible</li> <li>Ball and roller bearings, bearings and mechanisms rotating at medium speeds and subjected to high loads</li> </ul>          | <ul style="list-style-type: none"> <li>Excellent chemical stability and oxidation resistance</li> <li>High corrosion protection</li> <li>Resistant to water washout and acid solutions</li> </ul>                                                                          |
| <b>NODROP<br/>090 RPM<br/>MoS2</b>  | L-XBEFB       | KPFP-20      | 620                        | 1,2,3                 | 20 a 175<br>POINTS OF<br>200  | <ul style="list-style-type: none"> <li>High speed ball and roller bearings</li> <li>Motor bearings</li> <li>Crushers, mills, screens and centrifuges</li> </ul>                                                                                 | <ul style="list-style-type: none"> <li>With MoS2 which gives very high E.P</li> <li>High temperatures</li> <li>High velocities (PV 600.000)</li> </ul>                                                                                                                     |
| <b>NODROP<br/>090 RPM<br/>TF</b>    | L-XBCEB       | KPK-20       | 500                        | 000,00,0,<br>1,2, 2/3 | 20 a 175<br>POINTS OF<br>200  | <ul style="list-style-type: none"> <li>High speed ball and roller bearings</li> <li>Motor bearings</li> <li>Bearings in the presence of water</li> </ul>                                                                                        | <ul style="list-style-type: none"> <li>With PTFE which lowers the coefficient of friction and improves performance with water</li> <li>High temperatures</li> <li>High speeds (FV 600.000)</li> </ul>                                                                      |
| <b>MOLYT</b>                        | L-XBCEB       | KPK-20       | 250                        | 000,00,0,<br>1,2,3    | -20 a 120<br>POINTS OF<br>140 | <ul style="list-style-type: none"> <li>Automatic systems in automotive and public works</li> </ul>                                                                                                                                              | <ul style="list-style-type: none"> <li>Multipurpose Grease with Molybdenum Disulphide as solid additive EP</li> </ul>                                                                                                                                                      |
| <b>NODROP<br/>096</b>               | L-XBCEB       | KPFR-30      | 620                        | 2                     | -25 a 180<br>POINTS OF<br>300 | <ul style="list-style-type: none"> <li>Lubrication of bearings and bearings subjected to high temperatures, such as chains and oven extractors in paper, textile and paint dryers</li> </ul>                                                    | <ul style="list-style-type: none"> <li>Suitable for use in corrosive environments</li> <li>Withstands very adverse conditions of pressure and temperature</li> <li>Very high loads</li> <li>Very high temperatures</li> </ul>                                              |
| <b>NODROP<br/>106</b>               | L-XBCEB       | KPFEU-40     | 620                        | 2                     | -40 a 240<br>POINTS OF<br>250 | <ul style="list-style-type: none"> <li>High temperature mechanisms and bearings</li> <li>Packaged bearings for life</li> <li>Paint oven chains</li> <li>Mechanisms that withstand very high high loads</li> </ul>                               | <ul style="list-style-type: none"> <li>Suitable for use in corrosive environments</li> <li>With Molybdenum Disulphide (MoS2) for lubricity and EP properties</li> <li>Service life 10 times longer than other synthetic greases</li> <li>Very high temperatures</li> </ul> |



## LUBRICATING GREASES: PERFLUOROCARBON

| PRODUCT                 | QUALITY LEVEL |            | WELDING<br>LOAD EP<br>(KG) | NLGI   | WORKING<br>TEMPERATURE<br>°C   | APPLICATIONS                                                                                                                                | PROPERTIES                                                                                                                                                                                                                                                                    |
|-------------------------|---------------|------------|----------------------------|--------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         | ISO 6743      | DIN 51502  |                            |        |                                |                                                                                                                                             |                                                                                                                                                                                                                                                                               |
| FLUORLUBE               | L – XED-HB    | KP-FFKU-30 | > 800                      | 1, 2/3 | - 30 a 250<br>POINTS OF<br>270 | • Works with pure oxygen<br>• Withstands acids, bases and gases<br>• Mechanisms working at very high temperatures<br>• Lifetime lubrication | • Provided with anti-rust and EP additives<br>• Speed factor 300.000<br>• The grease is suitable for high temperature operation<br>• Long lubrication life due to additional PTFE additives<br>• Optimum lubrication                                                          |
| NODROP 011<br>SINT MOS2 | L – XED-HB    | KPEP-60    | > 800                      | 2      | - 24 a 288<br>POINTS OF<br>295 |                                                                                                                                             | • Very high viscosity oil<br>• Speed factor 200.000<br>• Provided with anti-rust additives<br>• Withstands shock and EP loads<br>• Grease is suitable for high temperature operation<br>• Long relubrication period due to additional PTFE additives<br>• Optimum lubrication |

## ACCESSORIES

**elesa® SINGLE POINT LUBRICATOR**

## Plastic container with battery.

## Sold empty or full

**Single-point lubricator with threaded lubricator, which automatically lubricates a critical point of the installation with the grease that best suits the mechanism and without becoming waste.**

- **Machinery and construction.**
- **Public works, mining and exploration.**
- **Naval sector.**
- **Agriculture.**

**elesa® GREASE GUN**

Thread: 1/8 GAS (1/8 BSP)  
Pressure: 300 bar (4.350 psi)  
Rigid. Ref: 321 0120  
Flexible. Ref: 321 0229



## 40

# ASSEMBLY PASTES

| PRODUCT                    | QUALITY LEVEL<br>DIN 51502 | SOLIDS       | COLOR         | NLGI | WORKING TEMPERATURE<br>°C                                                              | APPLICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | PROPERTIES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|----------------------------|--------------|---------------|------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PASTA BIO CERAMI-CA</b> | KPF2U-50                   | > 35%        | Pearl grey    | 2    | -50 a 2.000                                                                            | <ul style="list-style-type: none"> <li>• Anti-cracking on bolts and nuts. Provides tightening torques</li> <li>• Assembly paste for axle shafts, valves, stud bolts, anchor pins, bolts, plain bearings, chains and guides</li> </ul>                                                                                                                                                                                                                                               | <ul style="list-style-type: none"> <li>• OECD-301B. Biodegradability &gt;75%.</li> <li>• Biodegradable assembly paste with high load carrying capacity, low coefficient of friction and high solids content</li> <li>• Optimum resistance characteristics against moisture and salt water</li> <li>• Protects against environmental corrosion</li> <li>• Preserves mechanisms from wear and prevents scuffing</li> </ul>                                                                                       |
| <b>PASTA PAG GRAFITO</b>   | KPF12U-40                  | 50%          | Black         | 2    | - 35 a 550                                                                             | <ul style="list-style-type: none"> <li>• Impregnating agent for neutral rubber, synthetic rubber and other elastomers in seals, gaskets and sealing rings</li> </ul>                                                                                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Assembly paste formulated with polyalkylene glycol base oil with high concentration of graphite</li> <li>• Metal screws including aluminium or nickel elements</li> <li>• Suitable for non-metallic materials</li> <li>• Does not attack natural or synthetic rubbers or bearings made of plastic materials</li> <li>• Does not form rubbers or varnishes, as its thermal decomposition products are volatile, the graphite remaining as a solid lubricant</li> </ul> |
| <b>PASTA ALUMINIO</b>      | KPF2U-60                   | ALUMINIO 20% | Metallic grey | 2    | - 20 a 700                                                                             | <ul style="list-style-type: none"> <li>• Assembly of shafts, valves, bolts and nuts, friction bearings, studs, anchor pins, spindles, chains and guides</li> <li>• Protection of electrical contact protection</li> </ul>                                                                                                                                                                                                                                                           | <ul style="list-style-type: none"> <li>• Preserves mechanisms from seizure and corrosion and facilitates disassembly work</li> <li>• Electrically conductive</li> </ul>                                                                                                                                                                                                                                                                                                                                        |
| <b>PASTA COBRE LIGHT</b>   | KPF2U-20                   | > 12,5%      | Copper        | 2    | -20 a 150°C Grease in continuous.<br>-20 a 200°C Flashing.<br>-20 to 1100°C Anti-grip. | <ul style="list-style-type: none"> <li>• Drilling collars</li> <li>• Gripping clamps for steel and glass</li> </ul>                                                                                                                                                                                                                                                                                                                                                                 | <ul style="list-style-type: none"> <li>• High performance assembly paste</li> <li>• Electrically conductive</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>PASTA COBRE MEDIUM</b>  | KPF2U-30                   | > 25%        | Copper        | 2    | - 30 a 1100                                                                            | <ul style="list-style-type: none"> <li>• Anti-cracking in mechanisms and threaded connections subjected to vibrations, high pressures, high temperature or corrosive atmospheric conditions including in marine environment</li> <li>• Lubricant for threads, gas-flow torch nozzles, studs, anchor pins, screws, etc</li> <li>• Tooling thrust shafts</li> <li>• Valves and fittings. Pressure adjustments</li> <li>• Nozzles and dies in plastic injection and foundry</li> </ul> | <ul style="list-style-type: none"> <li>• Provides hermetic sealing in connections, achieving tightening torques similar to those of tightening</li> <li>• Electrically conductive</li> <li>• Provides a continuous surface on electrical contacts and protects them against oxidation or sulphation</li> </ul>                                                                                                                                                                                                 |
| <b>PASTA COBRE HEAVY</b>   | KPF2U-40                   | > 36%        | Copper        | 2    | - 45 a 1100                                                                            | <ul style="list-style-type: none"> <li>• Protection of electric meters and avoids surface deformation caused by arc flashover</li> <li>• Welding robots</li> <li>• Lubrication of threads in drilling in the following industries: oil, mining, quarries, public works, etc</li> </ul>                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>• Non-drop point assembly paste, consisting of a fluid and solid lubricants forming a uniform viscostatic matrix that prevents leakage, internal corrosion and welding between adjacent components</li> <li>• Allows for temperature transfer, both in heat dissipation and heat transfer in applications such as probe filling</li> <li>• Corrosion protection, even in a saline environment</li> </ul>                                                                |



## ASSEMBLY PASTES

| PRODUCT        | QUALITY LEVEL<br>DIN 51502 | SÓLIDOS | COLOR | NLGI | WORKING TEMPERATURE<br>°C | APPLICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                     | PROPERTIES                                                                                                                                                                                                                                                                                                      |
|----------------|----------------------------|---------|-------|------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PASTA MOS2     | KPF1U-20                   | > 60%   | Black | 1    | - 15 a 500                | <ul style="list-style-type: none"> <li>• Reducers, avoiding pitting and reducing running-in times</li> <li>• Couplings and universal joints, extending the life time of these mechanisms</li> <li>• Lubrication of mobile carriage guides and machine tool feed screws to prevent stick-slip</li> <li>• For axle fittings, assemblies, valves, splined shafts, etc</li> <li>• Where it avoids seizures, contact corrosion and welding</li> </ul> | <ul style="list-style-type: none"> <li>• Effective lubricant film with high tenacity and adhesion</li> <li>• Prevents premature wear and seizure when starting up new machinery or after repair and assembly</li> <li>• With a high amount of micronised molybdenum disulphide</li> </ul>                       |
| PASTA PAG MOS2 | KPF1U-40                   | > 50%   | Black | 1    | -40 a 500                 | <ul style="list-style-type: none"> <li>• High temperature bearings and bearings</li> <li>• Elements of high temperature chains and bearings made of non-metallic materials</li> <li>• Impregnating agent for neutral rubber, synthetic rubber and other elastomers in seals, gaskets and sealing rings</li> <li>• Sealing and anti-cracking in valves, taps and pipe threads of liquid and gaseous chemical products</li> </ul>                  | <ul style="list-style-type: none"> <li>• Assembly paste on synthetic polyalkylene glycol base with high concentration of molybdenum disulphide</li> <li>• It does not form gums or varnishes, as its thermal decomposition products are volatile, leaving molybdenum disulphide as a solid lubricant</li> </ul> |

mineral oil

**synthetic oil**

**biodegradable oil**

# CARE PRODUCTS INDUSTRIAL SECTOR

## PERSONAL HYGIENE

## CLEAN PASTA MANOS

Degreasing paste with non-abrasive particles and fresh scent, very effective for cleaning hands in workshops. Removes especially grease, inks and carbon deposits. Leaves hands soft and perfumed as a result. How to use: with a small amount, rub hands dry until all dirt is removed from the hand, then rinse with plenty of water until the dirt and soap are completely removed.

## CLEAN GEL MANOS

Citrus scented gel. Powerful degreaser, water soluble, pleasant smelling and specifically prepared for hands working in difficult conditions and in contact with grease, inks, coals and sludge. Can be diluted with 2 parts water without losing its cleaning effect.

## CLEAN GEL MANOS PLUS

Viscous gel with particles, with a pine scent. Removes all types of oil, carbon deposits and industrial grease. The presence of natural soap combined with surfactants allows a very high degree of cleanliness and develops a softening action on the epidermis.



# GENERAL CLEANING AND DEGREASING

## CLEAN BIO A4 UNIVERSAL

Concentrated alkaline water-soluble degreaser based on biodegradable surfactants. Cleans surfaces containing oil, grease, carbon and all types of dirt. Restores the original appearance. Formulated on the basis of user and environmentally friendly compounds. Fast evaporation. Dosage: Cold 5-20 % - Hot 40-80 °C 1-10 %. Hot 40-80 °C 1-10 %.

## CLEAN BIO A4 LIMON

Concentrated multi-purpose degreaser cleaner with lemon scent. Removes all types of greasy dirt and leaves a pleasant smell. Based on biodegradable solvents and surfactants. Specially designed for clean industry. Dosage: Cold 5-20 % - Hot 40-80 °C 1-10 %.

## ADITIVO PTFE FLUID

Stable dispersion of PTFE in mineral oil designed to be added as a PTFE additive to mineral, PAO or ester based lubricating oils or greases, thus improving the anti-wear and extreme pressure properties of lubricants, thanks to the very low coefficient of friction of PTFE. It considerably reduces electricity consumption.

## ADITIVO SISTEMAS HIDRÁULICOS

Anti-friction additive to be added to mineral based lubricating oils in hydraulic systems to increase oxidation stability. Reduces viscosity variations with temperature. Improved low temperature behaviour and improved adhesion of the oil to metal. Prevents wear of the elements and extends their life.

## PROTECT METAL BASIC

Highly concentrated, thin waxy film protective coating on metal surfaces, which withstands more than 50 hours in a 52°C salt chamber. High dielectric strength. Direct use.

## PROTECT METAL EXTRA PLUS

Protective oily coating. Specially designed for cleaning and protection against corrosion on metal surfaces: finished parts, machinery, tools, electrical equipment, weapons, etc. Water repellent: displaces moisture and protects against corrosion in highly severe saline conditions. High cleaning power of grease, sludge, tar and oxides. Excellent, highly concentrated anti-corrosive, with more than 150 hours in a saline chamber at 52°C. Direct use.

# RELEASE AGENTS

## DESMOL PLÁSTICO

Synthetic non-stick, lubricating, release and polishing fluid. Silicone free. Release agent for plastic and rubber moulding. In injection, compression or vacuum processes. One thin layer is sufficient for several successive demoulding processes. Direct use.

## DESMOL LUBE SILICONA

Synthetic anti-adherent fluid for use on plastics and elastomers. Dielectric. Resistant to oxidation, aggressive environments, water washout, alcohols and most organic solvents. Cutting blade protector.



mineral oil

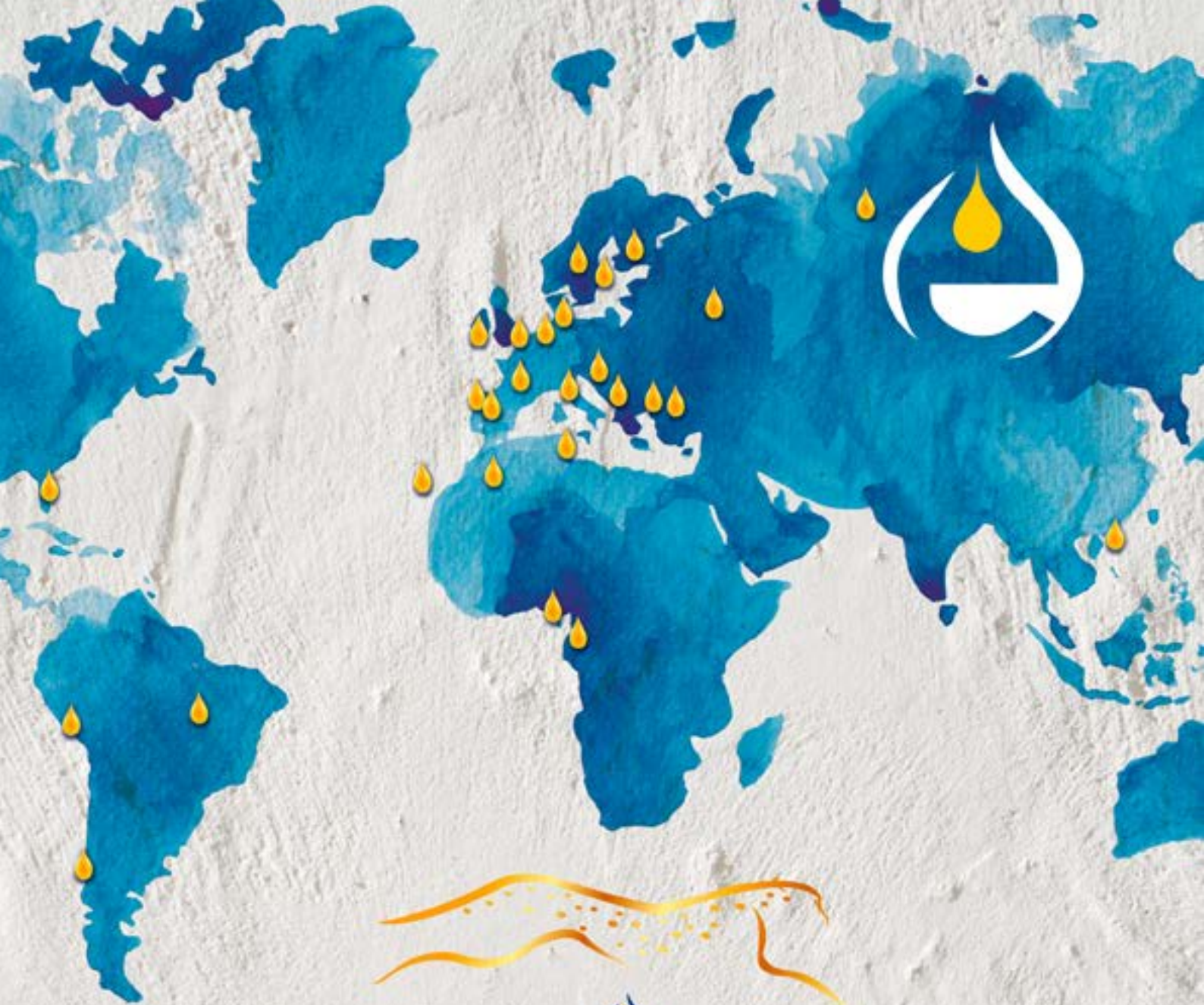


synthetic oil



biodegradable oil





## HI - TECH LUBRICANTS

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