

## ROTHEN COBER Additive for Hydraulic Oils

### DESCRIPTION:

**ROTHEN COBER** is an additive specifically studied for the treatment of hydraulic oils and lubricants for hydraulic or oleodynamic transmission. It has been designed to be compatible with all types of lubricants on the market today, both mineral based and obtained by chemical synthesis.

It ensures its action thanks to the synergies of the *Global Protection Shield* System, a concentration of a well-balanced antioxidant, anti-wear additives and detergents with an effective friction modifier.

The presence of high shear stability polymers gives the product a high viscosity index. The formula is free from dust and inorganic compounds in dispersion, and is completely soluble in the most common base lubricants.

### APPLICATIONS:

**ROTHEN COBER** can be used as a multipurpose additive, being especially recommended in the following cases:

- Lowering of performance caused by excessive and / or premature wear;
- High level of noise of lubricated;
- Deterioration of the characteristics of the lubricant in service for a long time.

### EMPLOYMENT:

**ROTHEN COBER** is compatible with both mineral-based and synthetic lubricants (polyglycol excluded).

The product should be added directly to the lubricant in use at a 10 to 15%.

### PERFORMANCE:

#### Friction modifier activity

The strong polarity of the *Global Protection Shield* system increases the resistance of the oil film, contributing significantly to reduce internal friction. It also helps to avoid dangerous seizures and microwelding between the metal surfaces in relative motion. The ability to reduce friction results in lower heat dissipation and, consequently, a smaller increase in the oil temperature, ensuring a better engine performance and significant energy savings at the same power output.

#### Antiwear property

**ROTHEN COBER** restores the lubricant's ability to interact with the metallic surfaces by means of chemical and physical processes, increasing the formation of a protective layer which reduces the roughness and ensures optimal preservation of the oil film, even in extreme lubrication conditions. It is therefore able to contrast different types of wear such as: fatigue, corrosive and abrasive.

#### Antioxidant Power

The product renews the lubricant's ability to block the oxidation processes which would cause irreversible degradation, with consequential loss of essential performance. It may inhibit the formation of free radicals that, through a chain reaction, would lead to the formation of acidic species (chemical wear) and condensation products of high viscosity (with a worsening of the rheological properties at low temperature).

By using **ROTHEN COBER** it is possible to attain the following benefits:

- Reduce the negative effects of water which may have formed in the hydraulic system, both by the contamination of cutting fluids or condensation, by emulsion;

- Prevent the breakage and malfunction of hydraulic plants caused by debris and deposits of various kinds (for example, by carbon);
- Extend the service life of a hydraulic fluid by replenishing its antioxidant and anti-wear characteristics.

### TYPICAL PHYSICAL-CHEMICAL CHARACTERISTICS: (\*)

CHARACTERISTIC	UNIT OF MEASURE	METHOD	OUTCOME
Viscosity at 40°C at 100°C	cSt	ASTM D 445	126 23.7
Viscosity Index	---	ASTM D 445	220
Density at 15°C	Kg/l	ASTM D 1298	0,930
Flammability Point	°C	ASTM D 93	>200

(\*): The values are based on typical production, and may consequently vary.

