

Tribol™ GR ES 2

Energy Saving Grease

Description

Castrol Tribol™ GR ES 2 (previously called Longtime™ ES 2) is an energy saving, synthetic high performance grease based on novel thickener-technology.

It has excellent mechanical and shear stability and extraordinary resistance against water and humidity as well as metalworking fluid emulsions.

The carefully selected additive package includes antioxidants, corrosion inhibitors and a unique EP/AW system. The novel polymeric thickener is non-ionic, inert and contributes to an increased film thickness. This, in turn, results in longer life and easier and more secure maintenance. On account of its polymeric nature we can use the lower base oil viscosity instead of a higher base oil viscosity product. This in turn helps reduce the application temperature and leads to energy saving.

Significant drop in temperature has been observed in certain applications.

Due to the inertness of the thickener system, the product is also compatible with most types of conventional lubricating greases. In addition, the technology provides high adhesion and low solubility resulting in excellent resistance to water and aggressive chemicals.

Application

- For lubrication for both sliding- and rolling applications
- The product can be used for consolidation within a plant
- For lubrication of electric motor bearings.
- For Bearing-lubrication even under strong influence of emulsions or water.
- For lubrication of Chucks in Machine tools
- Temperature application range: - 30°C up to 100°C, max 120°C short term peaks.

Advantages

- Lower energy consumption.
- Decreased Operating temperatures.
- Excellent mechanical and shear stability.
- Decreased grease consumption and longer bearing lifetime
- Improved machine availability due to extended grease intervals and reduced downtime.
- Extraordinary resistance against water and metalworking fluid emulsions.
- Opportunity for product consolidation in a manufacturing facility.

Typical Characteristics

Name	Method	Units	Tribol GR ES 2
Colour	Visual	-	Beige
Appearance	Visual	-	Homogenous
Dropping Point	ASTM D566 / ISO 2176	°C/°F	≥ 140/284
Base oil Viscosity @ 40 °C/104 °F	ISO 12058	mm ² /s	47
Viscosity of the bleed oil @ 40 °C/104 °F	ASTM D7152	mm ² /s	260 +/- 26
Base oil Viscosity @ 100 °C/212 °F	ISO 12058	mm ² /s	8
Viscosity of the bleed oil @ 100 °C/212 °F	ASTM D7152	mm ² /s	34 +/- 3.4
Four Ball Wear test - Weld Load	DIN 51350-4	N	≥ 3000
Flow pressure @ -30 °C/-22 °F	DIN 51805	hPa	≤ 1400
Worked Penetration (60 strokes @ 25 °C/77 °F)	ASTM D217 / ISO 2137	0.1mm	265 - 295
Worked Penetration (100,000 strokes @ 25 °C/77 °F) - change from 60 strokes	ASTM D217 / ISO 2137	0.1mm	≤ 50
Roll Stability test - Shear Stability (50 hrs, 80 °C/176 °F)	ASTM D1831 (modified)	0.1mm	≤ 80
Rust Test - EMCOR (4 % sea salts in dist. water)	ASTM D6138 / ISO 11007	Rating	≤ 0/1
Copper Corrosion (24 hrs, 100 °C/212 °F)	ASTM D130 / ISO 2160	Rating	1a
Water Resistance	DIN 51807-1	Rating	≤ 1 - 90
Water Wash-out	ASTM D1264 / ISO 11009 / DIN 51807-2	% wt loss	≤ 2
Oil Separation (168 hrs @ 40 °C/104 °F)	IP 121 / DIN 51817	% wt	≤ 3
Four Ball Wear test - Wear Scar Diameter	DIN 51350-5E	mm	≤ 1.8

Subject usual manufacturing tolerances.

This product was previously called Longtime ES 2. The name was changed 2015.

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