Product Data

Tribol™ GR 1350-2.5 PD

High Performance Bearing Grease

Description

Castrol Tribol™ GR 1350-2.5 PD (previously called Optipit™) is a lithium soap based grease with an extremely high viscosity base oil containing the advanced MicroFlux Trans (MFT) additive package.

The Microflux Trans additive technology provides optimum wear protection and an extremely low coefficient of friction even under extremes of pressure, vibration, shock loads, at high or low speeds or varying micro-smoothing of the friction surfaces. Under severe load, components of the MFT additive combination are activated and diffuse into the surfaces, initiating an improvement of their friction characteristics through plastic deformation.

The organic reaction products become a component of the tribopolymer system. Unlike the case with conventional lubricants, the tribopolymers formed by MFT are long-chained compounds with excellent lubricity and adhesion. This means that the load carrying area is improved and that a hydrodynamic lubrication film is easier to maintain. This unique physio-chemical reaction achieves a non-sacrificial micro-smoothing of the friction surfaces.

Application

Tribol GR 1350-2.5 PD is especially suited for rolling and sliding bearings in dusty and humid environments. It builds a stable grease collar at the bearing edges, supporting the seals to prevent penetration of dirt, water and other contaminations. Tribol GR 1350-2.5 PD enables a hydrodynamic lubricating film even at low speeds.

Developed for the lubricantation of anti-friction and plain bearings running at low speeds which require extremely high oil viscosity, or operate in wet and dusty atmospheres found in applications such as:

- Mining, especially open-pit mining
- The steel industry/tube mills under heavy shock loads and vibration
- Equipment exposed to sea water, in harbours, and on ships and drilling platforms
- Yaw gear on wind turbines

Advantages

- Water and dirt repellent – the grease is still effective in adverse environments
- High load bearing capacity - enables the extension of operationg periods even under high loads whilst still maintaing optimum wear protection.
- Establishes a protective layer of MFT – this additive system can effectively increase the load bearing area, therefore reducing unit pressures, operating temperatures and wear which can increase service life of both parts and lubricant
- Improved bearing surfaces for longer service life result from the ‘running in’ effect of MFT
- Extremely low coefficients of friction – energy savings and reduced noise levels
- Good adhesion due to high oil viscosity – the film coating stays on the surface
- Reduction of running-in period

Typical Characteristics

Name	Method	Units	Tribol GR 1350-2.5 PD
Appearance	Visual	-	Brown
Thickener type	-	-	Lithium
Base Oil	-	-	Mineral oil
Consistency	ISO 2137 / ASTM D217	NLGI grade	2.5
Density @ 20 °C/68 °F	IP 530	kg/m³	905
Worked Penetration (60 strokes @ 25 °C / 77 °F)	ISO 2137 / ASTM D217	0.1 mm	245 - 275
Worked Penetration (100,000 strokes @ 25 °C / 77 °F) - change from 60 strokes	ISO 2137 / ASTM D217	0.1 mm	max. 25
Dropping point	ISO 2176 / ASTM D566	°C/°F	max. 250 / max. 482
Base Oil Viscosity @ 40 °C / 104 °F	ISO 3104 / ASTM D445	mm²/s	1350
Rust Test - EMCOR (distilled water)	ISO 11007 / ASTM D6138	Rating	max. 1/1
Copper Corrosion (24 hrs,100 °C / 212 °F)	ASTM D4048	Rating	max. 1b
SRV Friction and Wear test - 5ae	ASTM D5707	coeff. of friction / wear scar diameter (mm)	0.082/0.53
Oil Separation (168 hrs @ 40 °C / 104 °F)	IP 121 / DIN 51817	%wt	0.3
Flow pressure @ -20 °C / -4 °F	DIN 51805	hPa	950 - 1350
Water Resistance @ 90 °C	DIN 51807-1	Rating	1

Subject to usual manufacturing tolerances.

Additional Information

In order to minimise potential incompatibilities when converting to a new grease, all previous lubricant should be removed as much as possible prior to operation. During initial operation, relubrication intervals should be monitored closely to ensure all previous lubricant is purged.

This product was previously called Optipit. The name was changed in 2015.

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