



Product Data

Spheerol HTM 1

High Temperature Bearing Grease Containing MoS₂

Description

Spheerol™ HTM 1 is a NLGI 1, clay-thickened grease fortified with Molybdenum disulphide. It is primarily intended for the lubrication of plain and rolling element bearings operating at low speed and high temperature or under cycling conditions from ambient to high temperatures. It is based on a high quality, high viscosity mineral oil and is formulated to provide low volatility and high resistance to oxidation at high temperatures, resistance to water washout and good antiwear performance under heavy loads and low speeds. The Molybdenum disulphide in Spheerol HTM 1 makes it particularly suitable for the lubrication of cams, ways and other sliding machine elements subjected to fretting or shock loading.

Application

Spheerol HTM 1 is recommended for the lubrication of plain and rolling element bearings in applications such as oven conveyor or kiln bearings operating at low speeds and high temperatures or under cycling conditions from ambient to high temperatures. The grease will not soften and leak under high temperature conditions or harden excessively on cooling. It is particularly suited to the lubrication of cams, ways and other sliding machine elements subjected to long relubrication intervals, limited motion or shock loading. The recommended operating temperature range is 0°C/32°F to 170°C/338°F with appropriate relubrication intervals.

Advantages

- Reduced downtime and maintenance costs due to excellent protection against wear at high temperatures.
- Provides protection against fretting and shock loading.
- Will not soften and leak from bearings.
- Good resistance to water washout and steam.
- Extended intervals between relubrication due to long product life under arduous conditions.

Typical Characteristics

Name	Method	Units	Spheerol HTM 1
Appearance	Visual	-	Dark grey, smooth
Thickener type	-	-	Bentone (Clay)
Base oil	-	-	Mineral Oil
Consistency	ISO 2137 / ASTM D217	NLGI Grade	1
Worked Penetration (60 strokes @ 25°C / 77°F)	ISO 2137 / ASTM D217	0.1 mm	310 - 340
Worked Penetration (100,000 Strokes @ 25°C / 77°F) change from 60 Strokes	ISO 2137 / ASTM D217	0.1 mm	+17
Base Oil Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm ² /s	460
Copper Corrosion (24 hrs,100°C / 212°F)	ASTM D4048	Rating	1a
Oxidation Stability - Rotating Pressure Vessel test	ASTM D942	pressure drop psi	10.2
Four Ball Wear test - Wear Scar Diameter (40 kgf / 75°C / 1200 rpm / 1 hr)	ISO 51350 / ASTM D2266	mm	0.5
SKF R2FB test (140°C)	SKF test method	Pass	Pass

Subject to usual manufacturing tolerances

Spheerol HTM 1

12 Jul 2012

Castrol, the Castrol logo and related marks are trademarks of Castrol Limited, used under licence.

This data sheet and the information it contains is believed to be accurate as of the date of printing. However, no warranty or representation, express or implied, is made as to its accuracy or completeness. Data provided is based on standard tests under laboratory conditions and is given as a guide only. Users are advised to ensure that they refer to the latest version of this data sheet. It is the responsibility of the user to evaluate and use products safely, to assess suitability for the intended application and to comply with all applicable laws and regulations. Safety Data Sheets are available for all our products and should be consulted for appropriate information regarding storage, safe handling, and disposal of the product. No responsibility is taken by either BP plc or its subsidiaries for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from hazards inherent in the nature of the material. All products, services and information supplied are provided under our standard conditions of sale. You should consult our local representative if you require any further information.

Castrol Industrial, Technology Centre , Whitchurch Hill , Pangbourne , Reading , RG8 7QR , United Kingdom

<http://msdspds.castrol.com>