Technical Data



Performance you can trust

SAPPHIRE® Hi-Load 2

Long life multi-purpose bearing grease fortified with MoS₂

Product Overview

ROCOL® Hi-Load 2 is a heavy duty bearing greases containing molybdenum disulphide that has been designed for the effective lubrication and protection of ball, roller and plain bearings used in extreme environments.

SAPPHIRE Hi-Load 2 combines the triple life performance of SAPPHIRE 2 with the addition of molybdenum disulphide ensuring that a lubricating film exists under the most extreme loadings where the grease film can be squeezed out.

Features and Benefits

- Wide temperature range from -30°C to +150°C.
- Revolutionary multi-complex soap technology provides outstanding EP performance superior to conventional soap thickened lubricants.
- Molybdenum disulphide (MoS₂) has an affinity to metal surfaces leaving a tenacious high load carrying film with a low coefficient of friction. This film provides an extremely durable layer reducing frictional heat and wear and extending component life and lubrication intervals.
- Ideal for highly loaded, slow moving applications where shock loads and vibration can occur.
- Highly resistant to oxidation providing greatly extended lubrication intervals - typically 3 times longer than conventional lubricants.
- Excellent corrosion resistance to protect in humid, damp and even wet conditions.
- SAPPHIRE Hi-Load 2 maintains its integrity in extreme conditions and continues to protect over lubrication intervals, equipment failure, downtime and lubricant usage.

Directions for Storage and Use

- SAPPHIRE Hi-Load 2 can be applied manually, by grease gun, keg pump or by other methods suitable for dispensing NLGI No. 2 greases with solid additives.
- SAPPHIRE Hi-Load 2 is compatible with other soap thickened greases. However, for best results the previous lubricant should be removed prior to application.
- The storage temperature should be controlled between +1°C and +40°C.
- Shelf life is 3 years from date of manufacture.

Typical Applications

SAPPHIRE Hi-Load 2 is particularly suitable for slow moving bearings operating in extreme conditions such as shock loads, vibration and wet environments.

It is designed for heavy duty ball, roller and plain bearings typically found in industries such as quarries, mining, marine, docks, agriculture, construction and brick and tile Works.

SAPPHIRE Hi-Load 2 excels in applications such as crushers, screens, presses, loaders, scrapers, wagons and similar applications where pins, bushes, slides etc. are subjected to extreme conditions.

Pack Sizes

Pack Size	Part Code
400g cartridge	12761
5kg	12765
18kg	12764

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Property	Test Method	Result
Appearance	Visual	Smooth blue/black grease
NLGI No.	IP 50 - ASTM D217	2
Base Type	N/A	Severely refined mineral oil
Base Fluid Viscosity at 40°C	IP 71	180cSt
Base Fluid Viscosity at 100°C	IP 71	17cSt
Thickener	N/A	Multi complex soap technology
Solids	N/A	Molybdenum disulphide
Temperature Range	N/A	-30°C to +150°C
4-Ball:		
Weld Load	IP 239 – ASTM D2596	>800kg
Mean Hertz Load	IP 239 – ASTM D2596	144kg
Timken 'OK' Load	IP 326 – ASTM D2509	70 lb
Water Washout Test	IP 215 - ASTM D1264	2%
Emcor Corrosion Test	IP 220	0:0
Copper Corrosion Test	IP 112 - ASTM D130	1a

Values quoted above are typical and do not constitute a specification.

Safety Data Sheets

Safety data sheets are available for download from our website www.rocol.com or may be obtained from your usual ROCOL contact.

The information in this publication is based on our experience and reports from customers. There are many factors outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility. Issue: 1 Date: 01-11

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