Technical Datasheet

Performance you can trust

SAPPHIRE® Dynamic

High Performance Calcium Sulphonate Complex Grease

Applications

ROCOL SAPPHIRE Dynamic is a multi-purpose calcium sulphonate complex thickened grease optimised for highly loaded, slow moving systems operating at elevated temperature.

SAPPHIRE Dynamic has excellent water and corrosion resistance. It performs exceptionally under high temperatures and pressures.

SAPPHIRE Dynamic's chemical and physical properties give outstanding anti-wear and extreme pressure properties – giving long life protection in a wide range of applications.

- Bearings in highly loaded, slow moving systems
- Bearings at elevated temperature and humidity systems
- Pellet mills
- Steel and paper mills
- Heavy industry – plant and machinery in construction, quarrying and mining
- Heavy duty automotive applications – commercial, agriculture and off highway.

Usage Guidance

SAPPHIRE Dynamic can be applied manually, by a grease gun or keg pump.

Features and Benefits

- Offers an excellent wide temperature resistance of -20 °C to +180 °C. (Intermittent up to 200 °C)
- Outstanding load carrying / EP performance with a weld load of 800 kg.
- Excellent corrosion and water resistance protecting in humid, wet conditions.
- High viscosity base oil for extreme performance.
- Highly resistant to oxidation.
- Good pumpability.
- Maintains integrity in extreme conditions and continues to protect over extended lubrication intervals, reducing equipment failure, downtime and lubricant usage.

Storage Guidance

Storage temperature should be kept between 0 °C and 40 °C.

Shelf life is 3 years from date of manufacture.

Pack Sizes

Part Code	Pack Size
12351	400 g
12357	18 kg
12353	185 kg

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www.rocol.com

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Registered Company No: 00559693
Registered Office: Saxon House, 2-4 Victoria Street, Windsor, England, SL4 1EN

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Parameter	Test Method	Value
Appearance	Visual	Smooth Tacky
Colour	Visual	Beige
Thickener	-	Calcium Sulfonate Complex
NLGI Grade	-	1-2
Worked Penetration	ASTM D217	285 – 315
Base Oil Viscosity @ 40 °C	ASTM D445	420 cSt
Extended Worked Penetration	ASTM D217 (100K stroke)	± 30
Water Wash Out	IP 215 – ASTM D1264	< 1%
Copper Corrosion	ASTM D4048	1 (no tarnish)
4 Ball Wear Scar	IP 239 – ASTM D2266	< 0.55 mm
4 Ball Weld Load	IP 239 – ASTM D2596	800 kg
EMCOR	ASTM D6138	0 (no corrosion)
Drop Point	IP 396	> 250 °C
Oxygen Stability	ASTM D942 (100 hrs)	5 kPa
Water Spray Off Resistance	ASTM D4049	21 %
Oil Separation	IP 121 (40 °C, 168 hrs)	< 1%
Constant Operating Temperature Range	-	-20 °C – 180 °C (Intermittent up to 200 °C)

Safety Datasheets

These are available at https://www.rocol.com/datasheets. For further assistance, please contact us via the ROCOL website or using the details below.

Note

The information in this Technical Datasheet is informed by our experience and feedback from industry. There are many variables outside our control or knowledge which affect the use and performance of our products, for which reason it is given without responsibility. Values quoted are typical and do not constitute a specification.
If you'd like to discuss the suitability of any ROCOL solution for your system, please get in touch.

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