

# Technical Data

## Sapphire® Extreme

### High Load, High Temperature Bearing Grease

#### Description

ROCOL® SAPPHIRE Extreme is a heavy duty, high temperature bearing grease fortified with molybdenum disulphide. It has been designed for the effective lubrication and protection of ball, roller and plain bearings used in extreme environments.

SAPPHIRE Extreme 2 combines the resilience of a clay thickener 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.

Capable of operating in extreme environments where high temperatures, shock loads, vibration and water are present.

#### Applications / Industries

- Ball Bearings
- Roller Bearings
- Plain Bearings
- Thrust Bearings
- Ovens / Furnaces
- Kilns
- Crushers
- Presses
- Scrapers
- Manufacturing
- Heavy Industry
- Docks and Ports
- Steelworks
- Quarries
- Mining
- Agriculture
- Construction

#### Features & Benefits

- Excellent high temperature resistance: -10°C to +235°C
- Non-melting grease
- Fortified with molybdenum disulphide (MoS<sub>2</sub>) which has a natural affinity to metal.
- Highly water resistant
- Excellent corrosion resistance
- High load carrying film, ideal where shock loads or vibration can occur
- Reduces frictional heat and wear extending equipment life
- Highly resistant to oxidation providing extended lubrication intervals
- Excellent corrosion resistance protecting in humid, wet conditions.
- Highly tenacious lubricant with outstanding film strength ensuring the lubricants remain in place even in severe operating conditions.

#### Directions For Use

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

For best practice the storage temperature should be kept between 0°C and 40°C.

Shelf life is 3 years from date of manufacture.

Avoid mixing with soap greases

#### Further Information

For pack sizes, part codes and safety data sheets please visit [www.rocol.com](http://www.rocol.com) or get in touch with our customer service team who will be happy to help: [customer.service@rocol.com](mailto:customer.service@rocol.com)

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Property	Test Method	Result
<b>Appearance</b>	Visual	<b>Smooth blue / black grease</b>
<b>NLGI No.</b>	<b>IP 50 – ASTM D217</b>	<b>2</b>
<b>Base Type</b>	<b>N/A</b>	<b>Semi-synthetic</b>
<b>Base Fluid Viscosity at 40°C</b>	<b>IP 71</b>	<b>200cSt</b>
<b>Base Fluid Viscosity at 100°C</b>	<b>IP 71</b>	<b>20cSt</b>
<b>Thickener</b>	<b>N/A</b>	<b>Organically modified clay</b>
<b>Solids</b>	<b>N/A</b>	<b>Molybdenum disulphide</b>
<b>Temperature Range - Upper Limit</b>	<b>N/A</b>	<b>-10°C to + 235°C</b>
<b>Temperature Range - Short Periods</b>	<b>N/A</b>	<b>Up to +250°C</b>
<b>4-Ball Weld Load</b>	<b>IP 239 – ASTM D2596</b>	<b>280kg</b>
<b>4-Ball Mean Hertz Load</b>	<b>IP 239 – ASTM D2596</b>	<b>50kg</b>
<b>Oil Separation</b> <b>at +100°C</b>	<b>24 hrs</b>	<b>IP 121</b>
		<b>5% maximum</b>
<b>Water Washout Test</b>	<b>IP 215 – ASTM D1264</b>	<b>0%</b>
<b>Emcor Corrosion Test</b>	<b>IP 220</b>	<b>0:0</b>
<b>Corrosion Test:</b>		
<b>24 hrs at +100°C Copper</b>	<b>IP 112 – ASTM D130</b>	<b>1a</b>
<b>Corrosion Test - Mild Steel</b>	<b>24 hrs at 100°C</b>	<b>No stain</b>
<b>Corrosion Test - Aluminium</b>	<b>24 hrs at 100°C</b>	<b>No stain</b>

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

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