

## SAPPHIRE® 2, 1, 000

### Triple life multi-purpose bearing grease

#### Product Overview

ROCOL® SAPPHIRE 2, 1 & 000 heavy duty bearing greases are designed for the effective lubrication and protection of all types of ball, roller and plain bearings.

SAPPHIRE 2 is designed for normal use typically applied by greasegun or keg pump.

SAPPHIRE 1 is a slightly softer version for easier pumpability particularly when greasing is carried out via remote pipework.

SAPPHIRE 000 is a semi fluid version specifically developed for use in centralised lubrication systems, where very long pipe runs are inevitable and in grease filled gearboxes.

#### Features and Benefits

- Excellent temperature resistance from -30°C to +160°C.
- Revolutionary multi-complex soap technology provides outstanding EP performance superior to conventional soap thickened lubricants.
- SAPPHIRE 2, 1 & 000 are 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.
- Highly tenacious lubricants, with outstanding film strength, ensure the lubricants remain in place even in severe operating conditions.
- SAPPHIRE 2, 1 & 000 maintain their integrity in extreme conditions and continue to protect over extended lubrication intervals, reducing equipment failure, downtime and lubricant usage.
- Blue in colour for high visibility in use.

#### Directions for Storage and Use

- SAPPHIRE 2 & SAPPHIRE 1 - Apply manually, by grease gun or by other methods suitable for the NLGI grade of grease being used.
- SAPPHIRE 000 – fill reservoir or gearbox to the level recommended by equipment manufacturer.
- All grades are 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 2, 1 & 000 are designed for medium to heavy duty ball, roller and plain bearings. They are ideal for use in slower moving bearings operating under extreme conditions such as shock loads and wet environments found in all types of industrial applications.

SAPPHIRE 1 is particularly suitable for centralised lubrication systems greasing via long pipe runs.

SAPPHIRE 000 is designed particularly where centralised lubrication systems are used such as commercial vehicles heavy plant and other industrial applications. SAPPHIRE 000 is also ideal for use in grease filled gearboxes.

#### Pack Sizes

| SAPPHIRE:      | 2     | 1     | 000   |
|----------------|-------|-------|-------|
| 400g cartridge | 12171 | 12601 | -     |
| 5kg            | 12176 | 12606 | 12276 |
| 18kg           | 12175 | 12614 | 12284 |
| 50kg           | 12178 | 12608 | -     |
| 185kg          | 12179 | 12609 | -     |

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| Property                      | Test Method         | Result                        |               |                 |
|-------------------------------|---------------------|-------------------------------|---------------|-----------------|
| Appearance                    | Visual              | Smooth blue grease            |               |                 |
| SAPPHIRE 2 NLGI No.           | IP 50 – ASTM D217   | 2                             |               |                 |
| SAPPHIRE 1 NLGI No.           | IP 50 – ASTM D217   | 1                             |               |                 |
| SAPPHIRE 000 NLGI No.         | IP 50 – ASTM D217   | 000                           |               |                 |
| 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 |               |                 |
| Temperature Range             | N/A                 | -30°C to +160°C               |               |                 |
| 4-Ball:                       |                     | SAPPHIRE<br>2                 | SAPPHIRE<br>1 | SAPPHIRE<br>000 |
| Weld Load                     | IP239 – ASTM D2596  | >800kg                        | > 800kg       | >620kg          |
| Mean Hertz Load               | IP239 – ASTM D2596  | 120kg                         | 120kg         | 65kg            |
| Timken ‘OK’ Load              | IP 326 – ASTM D2509 | 60 lb                         | 60 lb         | 50 lb           |
| Water Washout Test            | IP 215 – ASTM D1264 | 2%                            | 2%            | N/A             |
| Emcor Corrosion Test          | IP 220              | 0:0                           | 0:0           | N/A             |
| Copper Corrosion Test         | IP 112 – ASTM D130  | 1a                            | 1a            | 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](http://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.

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