



## Tribol™ GR SW 1.5

High Performance Grease for Wind Turbines

### Description

Castrol Tribol™ GR SW 1.5 (previously called Optitemp™ SW 1) is a lithium based grease containing a synthetic base fluid and premium extreme pressure (EP) additives. The wax-free nature of the synthetic base oil and the low coefficient of traction (compared with mineral oils), provide excellent low temperature pumpability and very low starting and running torque. It can also offer the potential for energy savings and can reduce operating temperatures in the load zone of rolling and sliding element bearings. The lithium complex thickener gives excellent adhesion, structural stability, sealing effects and water resistance. Primarily intended for a wide variety of applications at extremes of temperature, the grease also has a high level of chemical stability and provides excellent protection against wear, rust and corrosion.

### Application

Castrol Tribol GR SW 1.5 is recommended for tough industrial applications especially as encountered in Wind Turbine Main Bearings, Yaw bearings and Pitch bearings. It gives outstanding bearing protection under high loads at low to moderate speeds and in applications where water resistance is critical. Castrol Tribol GR SW 1.5 is also recommended for use in steel and paper mills. Recommended operating temperature range is -40°C to 180°C.

### Advantages

- Reduced downtime and maintenance costs because of reduced wear, rust and corrosion.
- Outstanding high and low temperature performance.
- Extended service life with longer intervals between re-lubrication.
- Reduced energy consumption due to low traction coefficient.
- Ability to perform well in the presence of water.

## Typical Characteristics

| Name  | Method               | Units              | Tribol GR SW 1.5 |
|---|----------------------|--------------------|------------------|
| Appearance  | Visual               | -                  | Homogenous       |
| Colour  | Visual               | -                  | Beige            |
| Consistency   | ISO 2137/ASTM D217   | NLGI grade         | 1.5              |
| Dropping Point  | ISO 2176/ASTM D566   | °C/°F              | >260/>500        |
| Base Oil Viscosity @ 40 °C/104 °F                       | ISO 3104/ASTM D445   | mm <sup>2</sup> /s | 460              |
| Base Oil Viscosity @ 100 °C/212 °F                      | ISO 3104/ASTM D445   | mm <sup>2</sup> /s | 46               |
| Water Wash-out at 60 °C/140 °F                          | ISO 11009/ASTM D1264 | %wt loss           | <5               |
| Rust Test - EMCOR (Distilled water)                     | ISO 11007/ASTM D6138 | Rating             | 0/0              |
| Rust Test - EMCOR (1 % NaCl solution)                   | ISO 11007 modified   | Rating             | 0/0              |
| Worked Penetration (60 strokes @ 25 °C/77 °F)           | ISO 2137/ASTM D217   | 0.1 mm             | 290 - 320        |
| Four Ball Weld Load test - Weld Point                   | ISO 11008/ASTM D2596 | kgf                | 315              |
| Four Ball Wear test - Wear Scar Diameter (40 kgf/60 °C) | DIN 51350/ASTM D2266 | mm                 | 0.4              |
| Four Ball Wear test - Weld Load                         | DIN 51350 T4         | N                  | 2800             |

Subject to usual manufacturing tolerances.

**This product was previously called Optitemp SW 1. The name was changed in 2015.**

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