



## MOBIL SHC™ GREASE WT

Mobil Grease , Canada

High Performance Synthetic Grease for Wind Turbines

### Product Description

Mobil SHC™ Grease 461 WT and Mobil SHC™ Grease 681 WT are specially formulated to lubricate yaw, pitch and main bearings of wind turbines. They are performance synthetic lithium complex greases specially designed to exceed the demanding requirements of wind turbine applications at extreme temperature advanced synthetic base fluid with its low traction coefficient provides excellent low temperature pumpability and very low starting and running torque.

### Features and Benefits

- Superb thermal stability and oxidation resistance compared to conventional greases helps provide extended service life with longer relubrication intervals for turbines
- Outstanding low temperature performance compared to conventional greases provides excellent protection at low temperatures providing low torque and start-up at low temperatures
- Excellent rust and corrosion protection provides enhanced performance in wet conditions for reduced downtime and maintenance costs compared to conventional greases
- Outstanding structural stability in the presence of water helps retain grease consistency in hostile aqueous environments
- Excellent low temperature pumpability provides reliable lubrication of bearings using centralized grease systems or grease dispensers
- Low traction base oil coefficient offers potential improved mechanical life and reduced energy costs versus conventional greases
- Increased oil viscosity for extra protection with excellent low temperature properties
- No dye for improved housekeeping
- Excellent performance in the Wind Industry Riffel test

### Applications

Mobil SHC Grease 461 WT is an NLGI 1.5 Grade extreme pressure grease with ISO VG 460 synthetic base fluid recommended for tough wind turbine applications. SHC Grease 681 WT is an NLGI 1.5 Grade extreme pressure grease with ISO VG 680 synthetic base fluid recommended for tough wind turbine applications requiring additional EHL protection.

Mobil SHC Grease 461 WT and Mobil SHC Grease 681 WT meet most specifications of wind turbine builders and component suppliers and can demonstrate outstanding performance in the lubrication of yaw, pitch, and generator bearings either manually greased or using centralized grease systems or grease dispensers.

Recommended application temperature range of Mobil SHC Grease 461 WT for continuous operation is from -50°C to 150°C with proper regreasing intervals. Recommended application temperature range of Mobil SHC Grease 681 WT for continuous operation is from -40°C to 150°C with proper regreasing intervals.

### Specifications and Approvals

| This product has the following approvals: | MOBIL SHC GREASE 461 WT | MOBIL SHC GREASE 681 WT |
|---|-------------------------|-------------------------|
| GE Renewable Energy                       |                         | X                       |

| This product meets or exceeds the requirements of: |   |   |
|--|---|---|
| DIN 51825: 2004-06 KPHC1-2M-50                     | X | X |

## Properties and Specifications

| Property  | MOBIL SHC GREASE 461 WT | MOBIL SHC GREASE 681 WT |
|---|-------------------------|-------------------------|
| Grade   | NLGI 1.5                | NLGI 1.5                |
| Thickener Type  | Lithium Complex         | Lithium Complex         |
| Color, Visual   | Beige                   | Beige                   |
| Copper Strip Corrosion, Rating, ASTM D4048                  | 1A                      | 1A                      |
| Corrosion, Bearing, Rating, ASTM D1743                      | Pass                    | Pass                    |
| Dropping Point, °C, ASTM D2265                              | 260                     | 260                     |
| Flow Pressure @ -50 C, mbar, DIN 51805                      | 975                     | 1050                    |
| Four-Ball Extreme Pressure Test, Weld Load, kgf, ASTM D2596 | 250                     | 250                     |
| Four-Ball Wear Test, Scar Diameter, mm, ASTM D2266          | 0.4                     | 0.6                     |
| Oil Separation, 0.25 psi, 24 h @ 25 C, mass%, ASTM D1742    | 2.7                     | 2.4                     |
| Oil Separation, 168 h @ 40 C, mass%, IP 121                 | 3.3                     |                         |
| Penetration, 60X, 0.1 mm, ASTM D217                         | 305                     | 305                     |
| Penetration, Change from 60X to 100,000X, 0.1 mm, ASTM D217 | 17                      | 28                      |
| Roll Stability, 0.1 mm, ASTM D1831                          | -2                      | 10                      |
| SKF Emcor Rust Test, 10% Synthetic Sea Water, ASTM D6138    | 0.0                     | 0.0                     |
| US Steel Mobility @ -18 C, g/min, AMS 1390                  | 17                      | 13.5                    |
| Viscosity @ 100 C, Base Oil, mm <sup>2</sup> /s, ASTM D445  | 55                      | 74                      |
| Viscosity @ 40 C, Base Oil, mm <sup>2</sup> /s, ASTM D445   | 460                     | 680                     |
| Water Washout, Loss @ 79 C, wt%, ASTM D1264                 | 5                       | 8                       |

## Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.as>  
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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit [www.exxonmobil.com](http://www.exxonmobil.com)

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