



# Shell Omala S3 Wind

- Extra Life & Protection
- Wind Turbine Applications

## Advanced Wind Turbine Gear Oil

Shell Omala S3 Wind is a mineral oil based industrial gear lubricant offering high performance in wind turbine gearbox applications. It has been specifically designed to efficiently operate in low temperatures, assures excellent wear protection under high loads and shock load conditions, guards against micropitting and offers a high level of cleanliness. Please consider that use in systems with fine filtration is not recommended/supported by Shell because sustained foam control performance is not assured.

### DESIGNED TO MEET CHALLENGES

#### Performance, Features & Benefits

- **Long oil life**

Shell Omala S3 Wind is formulated to resist thermal and chemical breakdown throughout the maintenance interval. It will defend against sludge formation to provide extended oil life capability.

- **Wear & corrosion protection**

Shell Omala S3 Wind provides high levels of load carrying capacity and micro-pitting performance providing long component life even under shock loading conditions. These features provide benefits in terms of gear and bearing component life.

Shell Omala S3 Wind also provides excellent rust and corrosion protection, even in the presence of contamination by water.

- **Enhanced system efficiency**

Shell Omala S3 Wind can help maintain or enhance the efficiency of wind turbine gearboxes through improved low temperature performance, improved wear protection, excellent resistance to foam formation and has excellent water separation properties.

- **Cleanliness**

Shell Omala S3 Wind is filtered to high cleanliness levels during manufacture, meeting the rating of 17/15/12 or better at filling point, according to ISO 4406.

#### Main Applications

- **Wind turbines**

Shell Omala S3 Wind has been developed to lubricate the main gearbox of wind turbines.

Shell Omala S3 Wind is particularly recommended where a wind turbine gear oil is required to be supplied to high cleanliness levels.

Shell Omala S3 Wind is also suitable for use in yaw and pitch drive gearboxes where a mineral oil based product is requested.

Shell do not recommend/support use in systems with fine filtration (<10 microns) because sustained foam control performance is not assured. Please consult your Shell Local Technical Advisor and Product Application Specialist.

#### Specifications, Approvals & Recommendations

- ISO 12925-1 CKD
- ANSI/AGMA 9005-E02
- DIN 51517-3 CLP
- IEC 61400-4 CD IEC 2009; Annex E

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

#### Typical Physical Characteristics

Properties		Method	Shell Omala S3 Wind
Viscosity Grade		ISO 3448	320
Kinematic Viscosity	@40°C mm <sup>2</sup> /s	ISO 3104	320
Kinematic Viscosity	@100°C mm <sup>2</sup> /s	ISO 3104	24.6
Viscosity Index		ISO 2909	98

Properties		Method	Shell Omala S3 Wind
Flash Point, COC	°C	ISO 2592	>230
Pour Point	°C	ISO 3016	-21
Density	@15°C kg/m <sup>3</sup>	ISO 12185	901
FZG Load Carrying Test		DIN 51354-2	
	Failure Load Stage	A/8.3/90	>14
	Failure Load Stage	A/16.6/90	>14

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

## Health, Safety & Environment

### • Health and Safety

Shell Omala S3 Wind is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Safety Data Sheet, which can be obtained from your Shell representative.

### • Protect the Environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

## Additional Information

### • Advice

Advice on applications not covered here may be obtained from your Shell representative.