



# Rando<sup>®</sup> WM 32

## High performance multigrade wind turbine hydraulic fluid

### Product description

Rando WM 32 is a high performance multigrade hydraulic fluid designed for use in both wind turbine systems and a wide range of other applications, where optimum protection is required under severe operating conditions.

Rando WM 32 hydraulic fluid is formulated with reliable low temperature fluidity and a high viscosity index (VI) offering a wide operating temperature window. Rando WM 32 complies with Swedish Standard SS 15 54.34 AAV 32.

### Customer benefits

- Low pour point offers optimum pumpability, component lubrication and protection in low temperature start-ups
- Good anti-wear performance and corrosion resistance promotes increased system uptime with reduced maintenance costs
- Thermal stability helps prevent oil degradation and deposit formation, offering extended oil service life and drain intervals
- Reliable filterability in the presence of water helps cut maintenance time and helps save money
- Shear stable VI-improver designed to provide optimum efficiency at high operating temperatures and pressures

### Product highlights

- **Offers protection in low temperature start-ups**
- **Promotes wear and corrosion resistance**
- **Helps prevent deposit formation**
- **Reliable water filterability**
- **Designed for high temperature and pressure efficiency**

#### Selected specification standards include:

Vestas Wind Systems	Vickers
ISO	DIN
Swedish Standard	

## Applications

- Rando WM 32 is recommended for use in wind turbines and in many types of high pressure hydraulic system, operating across a wide ambient and operating temperature range
- Suitable for systems with gear, vane, radial and axial piston pumps

## Approvals, performance and recommendations

### Approvals

- Vestas Wind Systems 0000-2843
- Vickers M-2950S, I-286

### Performance

- ISO 6743/4 HV
- DIN 51 524/3, HVLP
- Swedish Standard SS15 54 34 AAV 32

Typical test data		
Test	Test Methods	Results
Viscosity Grade		32
<b>Shelf Life: 60 months from date of filling indicated on the product label</b>		
Appearance	Visual	Bright & Clear
Kinematic Viscosity at 0°C, mm <sup>2</sup> /s	ISO 3104	262.2
Kinematic Viscosity at 40°C, mm <sup>2</sup> /s	ISO 3104	34.5
Kinematic Viscosity at 100°C, mm <sup>2</sup> /s	ISO 3104	7.23
VI	ISO 2909	181
Pour Point, °C	ISO 3016	-51
Flash point, °C	ISO 2592	260
Density at 15°C, kg/l	ASTM D1298	0.86
FZG Damaged Load, A/8.3/90	DIN 51 354	11FLS
Hours to TAN 2.0 mg KOH/g, h	ASTM D0943	2000+
TAN mg KOH/g	DIN 51558	0.6

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances. The right to make modifications is reserved. This supersedes all previous editions and information contained in them.

**Disclaimer** Chevron accepts no liability for any loss or damage suffered as a result of using this product for any application other than applications specifically stated in any Product Data Sheet's.

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