



RW

Oil

motor
Lubricants Antifreeze
Industrial Marine

RW SPINDEL FORCE

DESCRIPTION

RW Spindel Force are premium quality, solvent refined, high viscosity index mineral oils specially chosen for their ability to provide superior lubrication in a wide range of industrial applications (in circulatory systems, certain hydraulic systems).

APPLICATIONS

- Machine circulation systems
- Oil lubricated plain and rolling element bearings
- High speed spindles
- Certain low loaded enclosed gears
- Some industrial hydraulic transmission and control systems containing steel-on-bronze and silver lubrication surfaces

PERFORMANCE PERFORMANCE FEATURES AND BENEFITS

- Excellent oxidation resistance
- The high resistance to oxidation, caused by heat in the presence of air, water and metal catalysts, such as copper, prolongs oil life.
- High viscosity index
- Minimal change of oil viscosity over the operating temperature range
- Air release and anti-foam properties
- Water shedding properties.
- RW Spindel Force have excellent water separation properties. Excess water can be drained easily from lubrication systems. (Water can greatly accelerate surface fatigue on gear and bearing interfaces and promote ferrous corrosion on all internal surfaces. Water contamination should be avoided or removed as quickly as possible after the occurrence.)
- Seal Compatibility
- RW Spindel Force are compatible with all normal mineral oil seal materials. This includes Nitrile and Butyl rubbers, Neoprene, Viton etc., where minimal swell and hardening are required in service.

ADVICE

Advice on applications not covered in this leaflet may be obtained from your RW™ Representative.

STORAGE

The product shall be stored in a closed container in a dry and clean place, away from flammable materials, heat sources, and direct sun light. The recommended storage temperature is 5–35°C, unless indicated otherwise.

Do not freeze the product. Observe the first in first out warehousing principle. Recommended shelf life is 5 years.

HEALTH AND SAFETY

The product is unlikely to present any significant health or safety hazard when properly used in the recommended application, and good standards of industrial and personal hygiene are maintained. Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

For further guidance on Product Health & Safety refer to the appropriate RW™ Product Safety Data Sheet.

Residues shall be utilized according to Directives EC 91/156, 91/689, and 94/62.

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

TYPICAL PHYSICAL CHARACTERISTICS

PROPERTY	METHOD	RW SPINDEL FORCE			
ISO Viscosity Grade	ISO 3448	5	10	15	22
Density at 15°C, kg/m ³	ISO 12185	892	888	849	861
Viscosity at 40°C, mm ² /s (sSt)	ISO 3104	4,50	8,60	12,00	20,00
Viscosity at 100°C, mm ² /s (sSt)	ISO 3104	1,60	2,20	3,10	4,05
Flash Point (COC), °C	ISO 2592	120	146	180	202
Pour Point, °C	ISO 3016	-69	-57	-12	-9

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