

Shell MORLINA® Oils HS

Advanced spindle, hydraulic and bearing oil

Shell MORLINA® Oils HS are high viscosity-index, solvent refined mineral oils blended with zinc free anti-wear and other additives to provide extended performance in circulatory systems or certain hydraulic systems.

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.
- **Good anti wear performance**
The selected additives provide efficient anti-wear performance without reacting to the softer metals used in the manufacture of certain pumps, such as steel-on-bronze and silver plate.
- **Corrosion protection**
Carefully selected additives enhance the oil's natural corrosion protective properties.
- **Low pour point**
The low pour point of the lighter oils in the MORLINA® range may be used to advantage in certain low temperature industrial applications.
- **Air release and anti-foam properties**
Careful use of additives ensure quick air release without excessive foaming.

Main Applications

- Machine circulation systems
- Oil lubricated plain and rolling element bearings
- High speed spindles (ISO grades 5 and 10 only)
- Certain low loaded enclosed gears

Typical Physical Characteristics

Shell MORLINA® Oils HS			2	10	22
Kinematic Viscosity	@ 20°C	cSt	2.9		
	@ 40°C	cSt	2	10	22
	@ 100°C	cSt	-	-	4.2
Density	@ 15°C	kg/L	0.806	0.881	0.865
Flash Point (COC)		°C	84	150	205
Pour Point		°C	<-45	-33	-30

These characteristics are typical of current production. While future production will conform to Shell specifications, variation in these characteristics may occur.

- Some industrial hydraulic transmission and control systems containing steel-on-bronze and silver lubrication surfaces

Advice on applications not covered in this handbook may be obtained from your Shell representative.

Compatibility and Miscibility

Seal Compatibility

Shell MORLINA® Oils HS 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.

Handling and Safety Information

For information on the safe handling, storage, or use of this product, refer to its Material Safety Data Sheet at <http://www.epc.shell.com/>. If you are a Shell Distributor, please call 1+800-332-6457 for all of your service needs. All other customers please call 1+800-237-8645 for all of your service needs.

Protect the Environment

Do not discharge into drains, soil, or water.