Shell Morlina Oil

Advanced spindle, hydraulic and bearing oil

Shell Morlina Oils 5, 10, 22, 32, 46, 68 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.

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

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 isopropylated phenyl phosphate additive provides 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.

Seal Compatibility

Morlina 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 Shell representative.

Health and Safety

Guidance on Health and Safety are available on the appropriate Material 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.

Typical Physical Characteristics

Morlina				**5**	**10**	**22**	**32**	**46**	**68**
Viscosity Grade			ISO 3448	5	10	22	32	46	68
Kinematic Viscosity			ASTM D 445						
	at 40°C	mm^2/s		5	10	22	32	48	68
	at 100°C	mm^2/s		-	-	4,2	5,4	6,8	8,8
Density at 15°C		kg/m^3	ISO 12185	869	881	865	880	875	878
Viscosity Index			ISO 2909	-	-	80	100	100	95
Flash Point COC		°C	ISO 2592	120	150	205	220	235	240
Pour Point		°C	ISO 3016	-30	-30	-30	-27	-27	-24

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

Viscosity - Temperature - Diagram