

# 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**

- **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.

### 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.

### 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 <sup>2</sup> /s	5	10	22	32	48	68
at 100°C	mm <sup>2</sup> /s	-	-	4,2	5,4	6,8	8,8
Density at 15°C	kg/m <sup>3</sup>	869	881	865	880	875	878
Viscosity Index	ISO 2909	-	-	80	100	100	95
Flash Point COC	ISO 2592	120	150	205	220	235	240
Pour Point	ISO 3016	-60	-33	-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

