Technical Data Sheet

Formerly Known As: **Shell Vitrea M**

Shell **Morlina** ***S1 B 220***

- Reliable Protection
- Industrial Application
- Water Shedding

Industrial Bearing & Circulating Oils

Shell Morlina S1 B oils are high performance oils designed to provide excellent protection for most industrial bearing and circulating oil system applications, particularly those processes where water shedding (demulsification) is important for the life of the equipment. Meets the most basic requirements of the Morgan standard for common bearing oils.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Good oil life – Maintenance saving**

  Shell Morlina S1 B oils use carefully chosen components to help provide consistent performance and protection throughout the maintenance interval.

- **Reliable wear & corrosion protection**

  Shell Morlina S1 B oils help prolong the life of bearings and circulating systems through:

  - Good water separation characteristics that help ensure that critical oil films are retained between highly loaded parts.

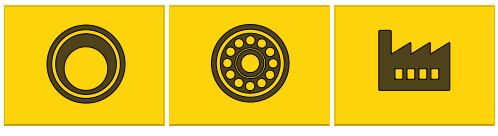
  - Good air release characteristics to minimize cavitation and associated damage to circulating pumps.

  - Helps protect against corrosion, even in the presence of water.

- **Maintaining system efficiency**

  Shell Morlina S1 B oils are blended with high quality, solvent refined base oils that promote good water separation and air release to ensure the efficient lubrication of the machines and systems.

Main Applications



- **Machine circulation systems**

- **Oil lubricated bearings**

  Suitable for most plain and rolling element bearings in general industrial applications.

- **Roll-neck bearings**

- **Enclosed industrial gear systems**

  Low or moderately loaded enclosed gears where EP performance is not required.

Specifications, Approvals & Recommendations

- Morgan MORGOIL® Lubricant Specification (New Oil Rev. 1.1) (MORGOIL is a registered trademark of the Morgan Construction Company)
- DIN 51517-1 – Oil Type C

  For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

Compatibility & Miscibility

- **Paint Compatibility**

  Shell Morlina S1 B oils are compatible with seal materials and paints normally specified for use with mineral oils.

Typical Physical Characteristics

Properties	Method	Morlina S1 B 220
ISO Viscosity Grade	ISO 3448	220

Properties			Method	Morlina S1 B 220
Kinematic Viscosity	@40°C	mm^2/s	ASTM D445	220
Kinematic Viscosity	@100°C	mm^2/s	ASTM D445	19.2
Density	@15°C	kg/m^3	ISO 12185	887
Viscosity Index			ISO 2909	95
Flash Point (COC)		°C	ISO 2592	249
Pour Point		°C	ISO 3016	-6
Rust, Distilled Water			ASTM D665A	Pass
Emulsion Test, Minutes	@82°C		ASTM D1401	20

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

Health, Safety & Environment

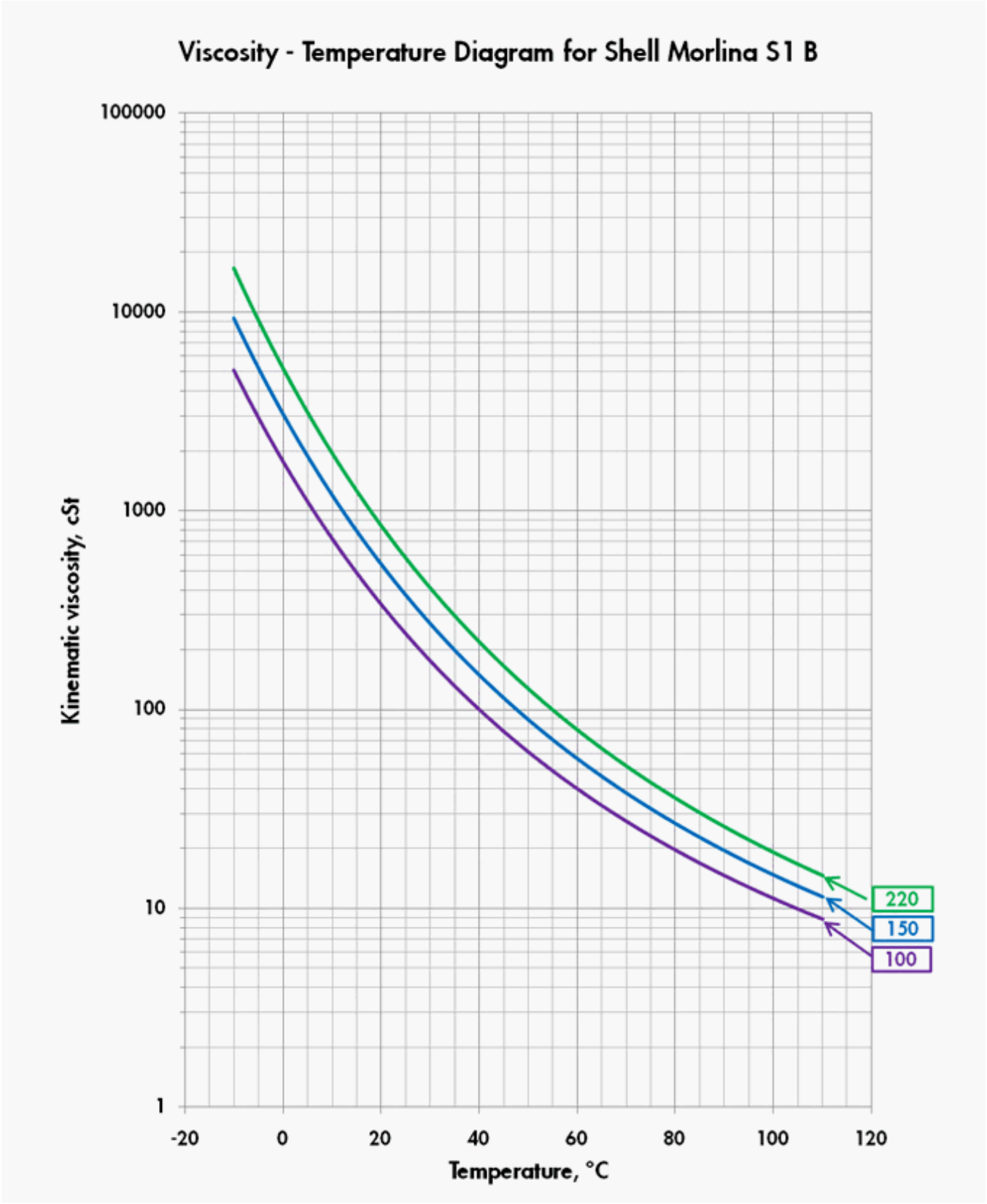
- Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from http://www.epc.shell.com/
- **Protect the Environment**

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

Additional Information

- **Advice**

  Advice on applications not covered here may be obtained from your Shell representative.


Viscosity - Temperature Diagram for Shell Morlina S1 B
Kinematic viscosity, cSt
100000
10000
1000
100
10
1
-20
0
20
40
60
80
100
120
Temperature, °C
220
150
100

Viscosity - Temperature Diagram for Shell Morlina S1 B

