Technical Data Sheet

Formerly Known As: **Shell Morlina Oils**

Shell **Morlina** *S2 B 220*

- Reliable Protection
- Industrial Application
- Water Shedding

Industrial Bearing & Circulating Oils

Shell Morlina S2 B oils are high performance oils designed to provide outstanding oxidation and water separation protection for most general industrial bearing and circulating oil system applications and certain other industrial applications which do not require oils with extreme pressure (EP) properties. These oils meet the requirements of the Morgan Construction Company and Danieli for common bearing oils.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Long oil life – Maintenance saving**
  Shell Morlina S2 B oils are formulated with a well proven rust and oxidation inhibitor additive package that helps provide consistent performance and protection throughout the maintenance interval.
- **Reliable wear & corrosion protection**
  Shell Morlina S2 B oils help prolong the life of bearings and circulating systems through:
  - Excellent water separation characteristics that helps 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, oxidation, and emulsion formation, even in the presence of water.
- **Maintaining system efficiency**
  Shell Morlina S2 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 and general industrial applications.
- **Roll-neck bearings**
- **Enclosed industrial gear systems**
  Low or moderately loaded enclosed gears where EP performance is not required.
- Cylinder Lubrication for reciprocating Gas Compressors

Specifications, Approvals & Recommendations

- Danieli Standard 6.124249.F
- DIN 51517-1 C
- DIN 51517-2 CL
- Morgan MORGOIL® Lubricant Specification New Oil (Rev. 1.1) (MORGOIL is a registered trademark of the Morgan Construction Company)

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

Compatibility & Miscibility

- **Paint Compatibility**
  Shell Morlina S2 B oils are compatible with seal materials and paints normally specified for use with mineral oils.

Typical Physical Characteristics

Properties			Method	Shell Morlina S2 B 220
ISO Viscosity Grade			ISO 3448	220
Kinematic Viscosity	@40°C	mm^2/s	ASTM D445	220
Kinematic Viscosity	@100°C	mm^2/s	ASTM D445	18.3
Density	@15°C	kg/m^3	ISO 12185	891
Viscosity Index			ISO 2909	92
Flash Point (COC)		°C	ISO 2592	280
Pour Point		°C	ISO 3016	-15
Rust, Distilled Water			ASTM D665A	Pass
Emulsion Test - @82°C (Unless specified by *)		Mins	ASTM D1401	20
Oxidation Control Test : TOST		Hrs	ASTM D943	1 300+
Oxidation Control Test : RPVOT		Mins	ASTM D2272	200+
Foam Test, Seq II		ml foam at 0/10 mins	ASTM D892	10/0

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur. *@54°C

Health, Safety & Environment

- **Health and Safety**

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

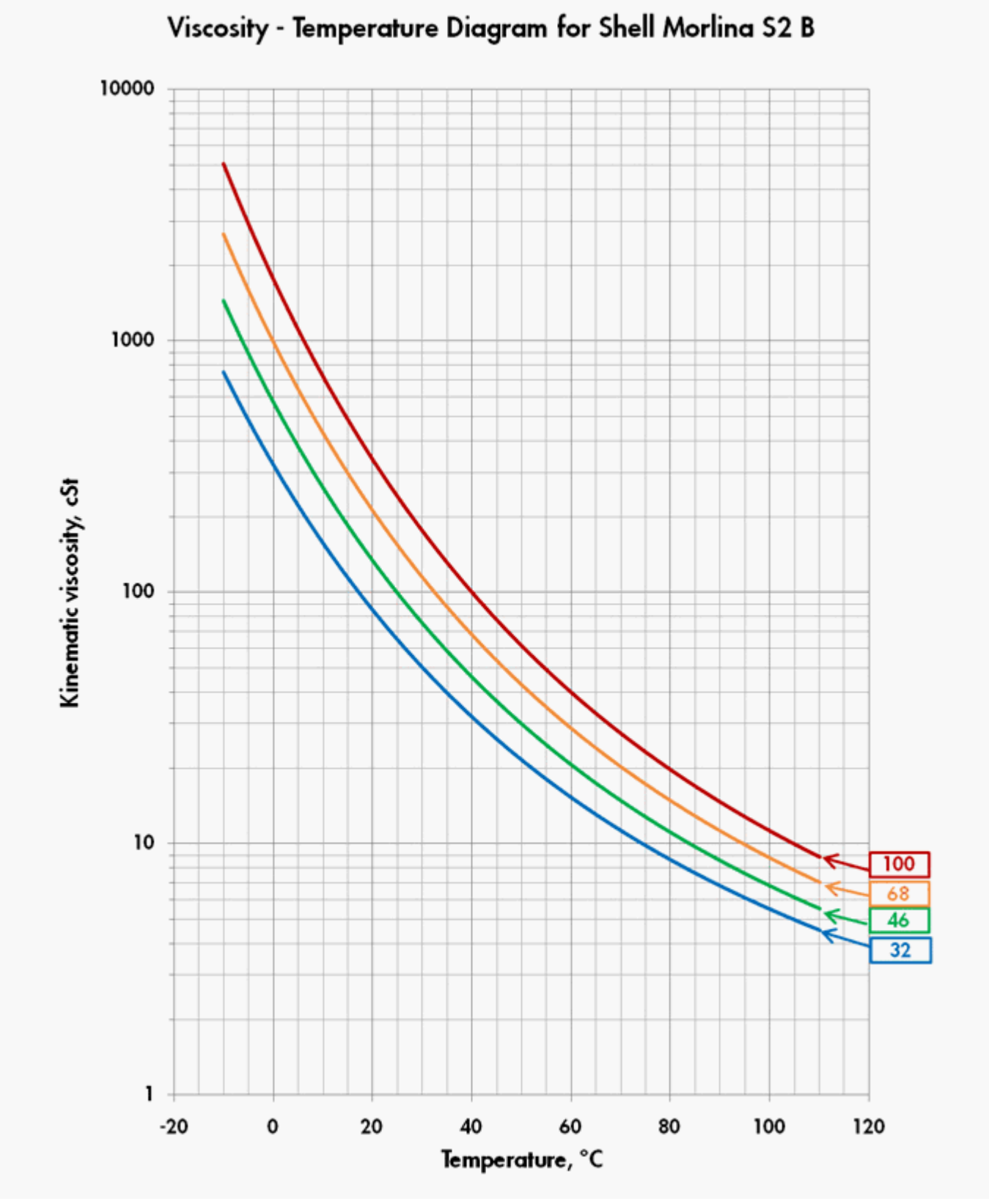
- **Protect the Environment**

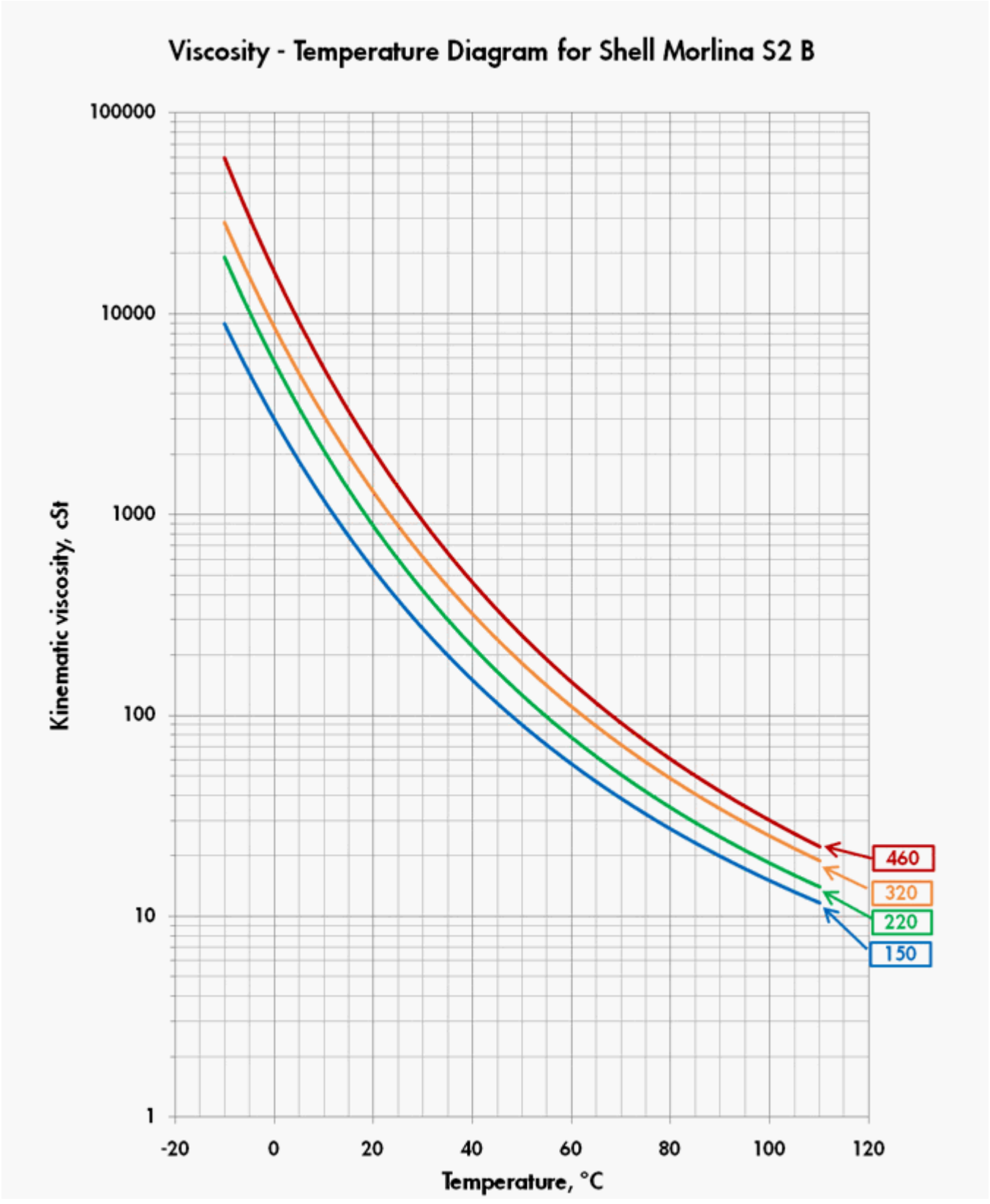
  Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

- **Advice**

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


Viscosity - Temperature Diagram for Shell Morlina S2 B
10000
1000
100
10
1
Kinematic viscosity, cSt
-20
0
20
40
60
80
100
120
Temperature, °C
100
68
46
32


Viscosity - Temperature Diagram for Shell Morlina S2 B
Kinematic viscosity, cSt
100000
10000
1000
100
10
1
-20
0
20
40
60
80
100
120
Temperature, °C
460
320
220
150