Technical Data Sheet

Previous Name: **Shell Morlina T**

Shell Morlina *S2 BA 100*

- *Reliable Protection*
- *Industrial Applications*
- *Extra Water Shedding*

Special Application Bearing & Circulating Oils

Shell Morlina S2 BA oils are high performance oils designed to provide outstanding protection for most challenging industrial bearing and circulating applications such as those found in Morgan No-Twist Mill Systems. Meets the requirements of OEMs such as Morgan and Danieli.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Good oil life – Maintenance saving**
  Shell Morlina S2 BA oils are formulated with a well proven rust and oxidation inhibitor package that helps provide consistent performance and protection throughout the maintenance interval.
- **Reliable wear & corrosion protection**
  Shell Morlina S2 BA oils help prolong the life of bearings and circulating systems through:

  - Enhanced water separation characteristics that help ensure critical oil films are retained between highly loaded parts in heavily contaminated environments

  - 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

  - Reduces wear of bearings during mill operation
- **Maintaining system efficiency**
  Shell Morlina S2 BA 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.

  Shell Morlina S2 BA oils are also suitable for use with fine filtration to help ensure effective contaminant free lubrication to critical machine parts.

Main Applications

- **Morgan No-Twist® systems**
  Shell Morlina S2 BA oils meet the demanding requirements for the lubrication of Morgan No-Twist Mill Systems where a single lubricant (ISO 100 or above) is required to protect the highly loaded roller and plain bearings working at high speeds and to work satisfactorily even when contaminated with cooling water and iron oxides coming from the mill.
- **General industrial bearing and circulating systems**
  Shell Morlina S2 BA oils are also suitable for use in many general industrial lubrication systems were an anti-wear lubricant with mild EP properties are required.
- **Enclosed Industrial Gear Systems**
  Low or moderately loaded enclosed gears where mild EP performance is sufficient.

Specifications, Approvals & Recommendations

- Morgan MORGOIL® Lubricant Specification New Oil (Rev. 1.1) (MORGOIL and Morgan No-Twist Mill are registered trademarks of the Morgan Construction Company)
- Morgan No-Twist® Mill (Spec MMC40003)
- Danieli Standard 0.000.001, Revision 14
- SEB 181-225 Specification
- DIN 51517-1 – type C
- DIN 51517-2 – type CL

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

Compatibility & Miscibility

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

Typical Physical Characteristics

Properties			Method	Morlina S2 BA 100
ISO Viscosity Grade			ISO 3448	100
Kinematic Viscosity	@40°C	mm^2/s	ASTM D445	100
Kinematic Viscosity	@100°C	mm^2/s	ASTM D445	11.1
Density	@15°C	kg/m^3	ISO 12185	880
Viscosity Index			ISO 2909	96
Flash Point (COC)		°C	ISO 2592	>240
Pour Point		°C	ISO 3016	-15
Rust, Salt Water			ASTM D665B	Pass
Emulsion Test		Mins	ASTM D1401	10
FZG Load Stage			ASTM D1582	12 Pass
Load Wear Index		kgf	ASTM D2783	33
Weld Point		kgf	ASTM D2783	160

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

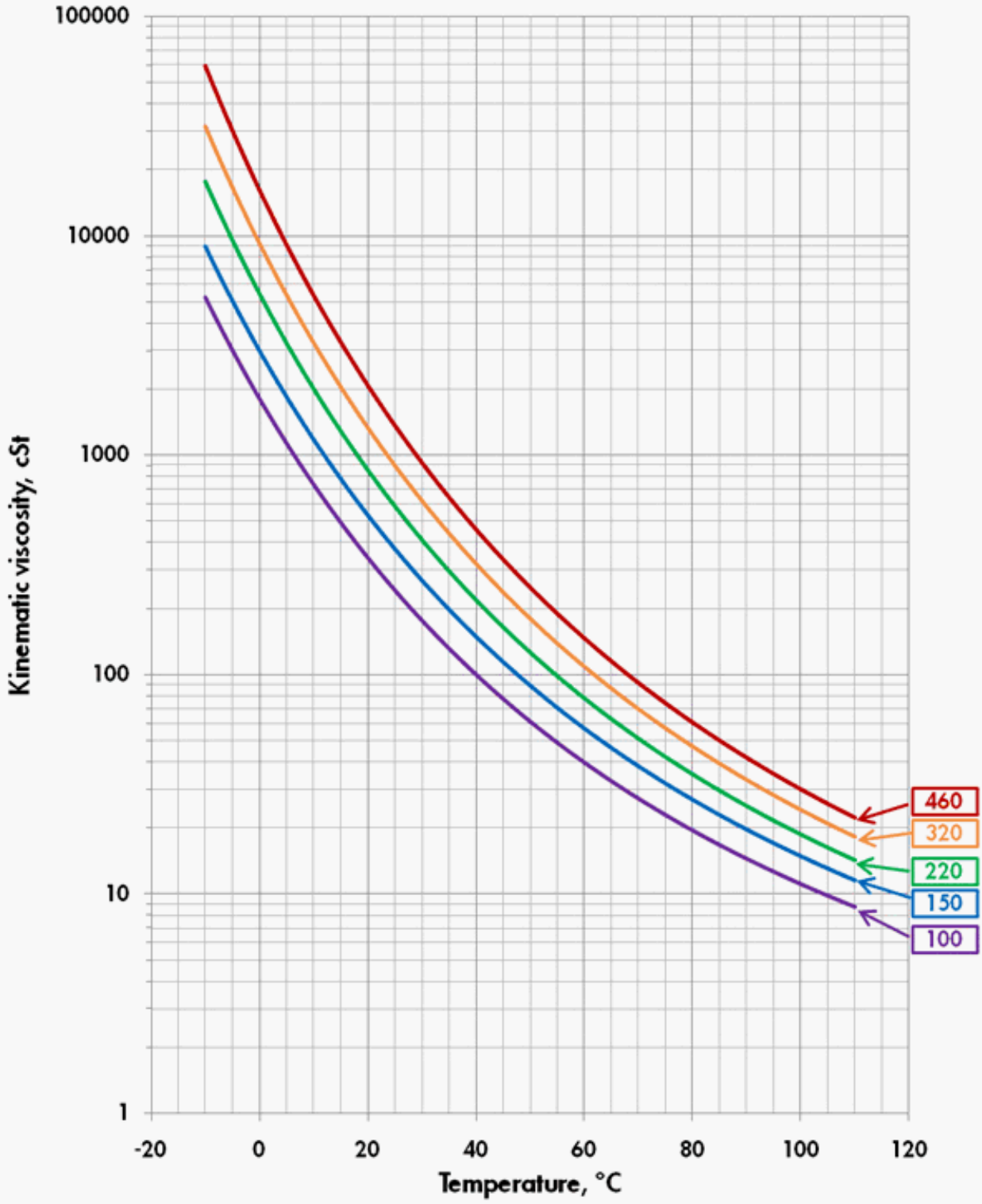
Health, Safety & Environment

- 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 S2 BA