Technical Data Sheet

Previous Name: **Shell Omala Oils**

Shell Omala *S2 G 680*

- *Extra Protection*
- *Standard Application*

Industrial Gear Oils

Shell Omala S2 G Oils are High Quality Extreme-Pressure Oils Designed Primarily for the Lubrication of Heavy Duty Industrial Gears. Their High Load Carrying Capacity and Anti-Friction characteristics Combine to Offer Superior Performance in Gears.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Long oil Life – Maintenance Saving**
  Shell Omala S2 G Oils are Formulated to Resist Thermal and Chemical Breakdown Throughout the Maintenance Interval. They Withstand High Thermal Loading and Resist the Formation of Sludge to Provide Extended oil Life Capability, Even With Bulk oil Temperatures of up to 100°C in Certain Applications.
- **Excellent Wear & Corrosion Protection**
  Excellent Load Carrying Capacity Reduces Gear Tooth and Bearing Wear on Both Steel and Bronze Components.
  Shell Omala S2 G has Excellent Corrosion Protection, Protecting Both Steel and Bronze Components, Even in the Presence of Contamination by Water and Solids.
- **Maintaining System Efficiency**
  Shell Omala S2 G Oils Have Excellent Water Separation Properties, Such That Excess Water can be Drained Easily From Lubrication Systems to Help Extend the Life of the Gears and Ensure Efficient Lubrication of the Contact Areas.
  Water can Greatly Accelerate Surface Fatigue of Gears and Bearings as Well as Promoting Ferrous Corrosion on Internal Surfaces. Water Contamination Should Therefore be Avoided or Removed as Quickly as Possible After the Occurrence.
- **Highly Loaded Gears**
  Shell Omala S2 G Oils Have an Effective Full Extreme Pressure (EP) Additive System Allowing Them to be Used in Highly-Loaded Gear Systems.
- **Other Applications**
  Shell Omala S2 G Oils are Suitable for Lubrication of Bearings and Other Components in Circulating and Splash-Lubricated Systems.
  For Highly-Loaded Worm Drives the Shell Omala "W" Series Oils are Recommended.
  For Automotive Hypoid Gears, the Appropriate Shell Spirax Oil Should be Used.

Specifications, Approvals & Recommendations

- Textron Power Transmissions (David Brown) 8E
- Meets MAG Specification P-34
- US Steel 224
- AGMA EP 9005 - EO2
- ISO 12925-1 Type CKC
- DIN 51517 - Part 3 (CLP)

For a Full Listing of Equipment Approvals and Recommendations, Please Consult Your Local Shell Technical Helpdesk, or the OEM Approvals Website.

Main Applications




- **Enclosed Industrial Gear Systems**
  Shell Omala S2 G Oils are Formulated Using an Effective Sulphur-Phosphorus Additive System to Provide an Extreme Pressure Performance Which Allow Trouble-Free application in Most Enclosed Industrial Gearboxes Using Steel Spur and

Helical Gears.

Typical physical characteristics

Properties			Method	Shell Omala S2 G
ISO Viscosity Grade			ISO 3448	680
Kinematic Viscosity	@40°C	mm^2/s	ISO 3104	680
Kinematic Viscosity	@100°C	mm^2/s	ISO 3104	38
Viscosity Index			ISO 2909	92
Density	@15°C	kg/m^3	ISO 12185	912
Flash Point (COC)		°C	ISO 2592	272
Pour Point		°C	ISO 3016	-9

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

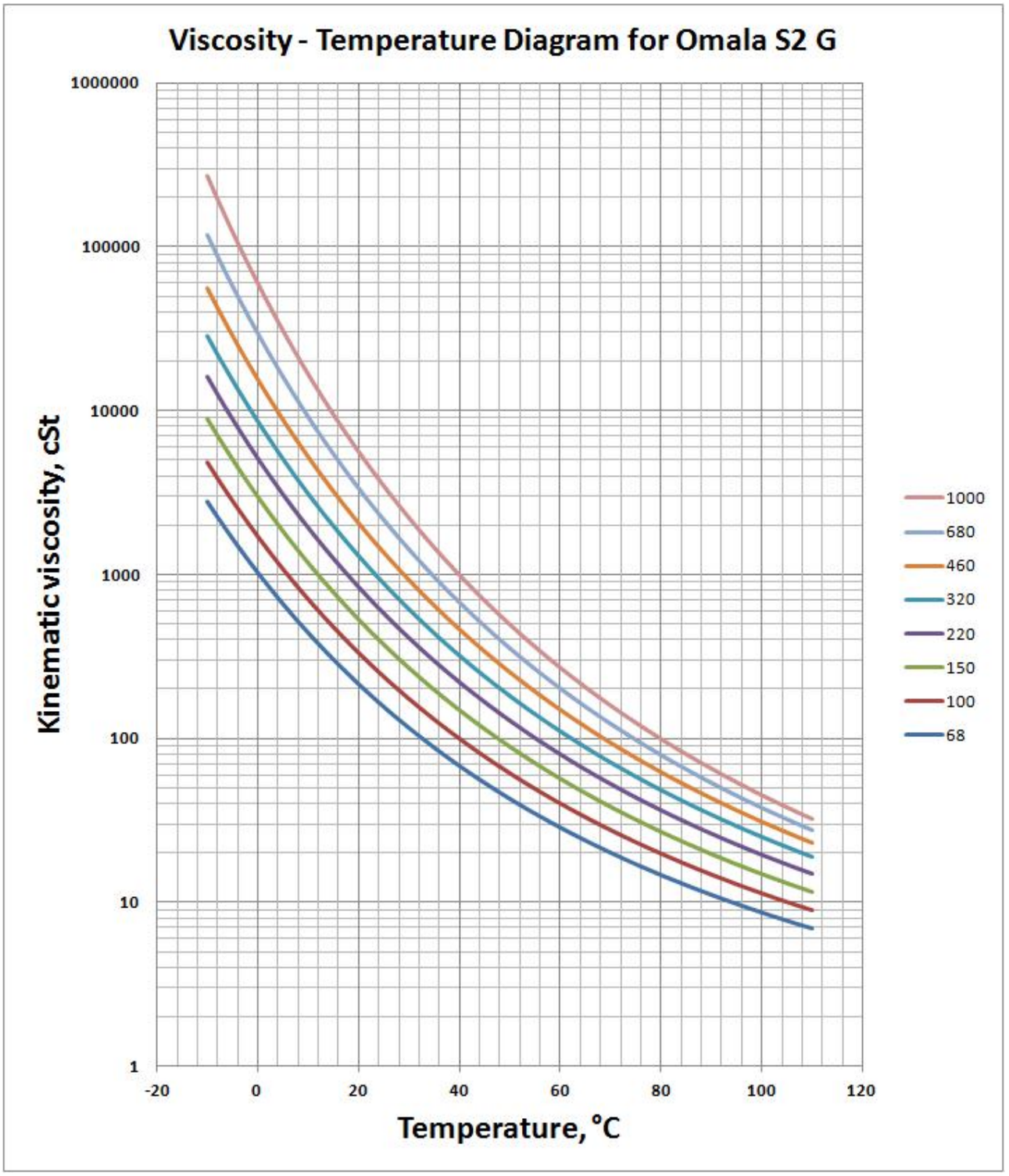
- Guidance on Health and Safety is Available on the Appropriate Material Safety Data Sheet, Which can be Obtained From http://www.epc.Shell.com/
- **Protect the Environment**

  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 Omala S2 G
Kinematic viscosity, cSt
1000000
100000
10000
1000
100
10
1
-20
0
20
40
60
80
100
120
Temperature, °C
1000
680
460
320
220
150
100
68