Technical Data Sheet

Formerly Known As: **Shell Corena V**

Shell **Vacuum Pump Oil *S2 R 100***

- *Reliable Protection*
- *Standard Applications*

Rotary Vacuum Pump Oil

Shell Vacuum Pump Oil S2 R 100 is formulated from selected premium performance, highly refined mineral oils. This provides the low vapour pressure and high performance, desired for the effective lubrication of rotary vacuum pumps.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Long life oil - maintenance saving**

  Shell Vacuum Pump Oil S2 R 100 is formulated to provide excellent resistance to oil degradation. This ensures the oil will provide a long service life as well as reduced tendency for sludge build up and deposit formation.

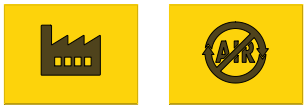
- **Outstanding wear and corrosion protection**

  Shell Vacuum Pump Oil S2 R 100 helps provide effective protection of internal metal surfaces from corrosion and wear.

- **Maintaining system efficiency**

  The selection of low vapour pressure base oils with a narrow boiling range enables the pump to efficiently work at the vacuum for which it is designed over the extended maintenance period.

Main Applications



- **Rotary vacuum pumps**

  Shell Vacuum Pump Oil S2 R 100 is designed for the use in rotary and sliding vane vacuum pumps. It can be used to provide low vacuum pressures. It is suitable for most industrial rotary vacuum pump applications.

- **Standard operating environments**

  Shell Vacuum Pump Oil S2 R 100 is suitable for applications where ambient temperatures are above 0^0C and where maximum operating temperatures do not exceed 100^0C. Maximum vacuum pressure capability generally tends to decrease as the pump operating temperatures increase.

  Shell Vacuum Pump Oil S2 R 100 is suitable for vacuum pumps working in a vacuum range of 1000 mbar – 10^{-2} mbar. Shell Vacuum Pump Oil S2 R 100 is not recommended for use when corrosive gasses or chemical vapours are involved in the extraction process.

Specifications, Approvals & Recommendations

- ISO 6743-3A-DVC
- Shell Vacuum Pump Oil S2 R 100 has been used extensively by major OEMs throughout the world.

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

Typical Physical Characteristics

Properties			Method	Shell Vacuum Pump Oil S2 R 100
ISO Viscosity grade			ISO 3448	100
Kinematic Viscosity	@40^{0}C	cSt	ASTM D445	108
Kinematic Viscosity	@100^{0}C	cSt	ASTM D445	11.8
Density	@15^{0}C	kg/m^3	ASTM D1298	882

Properties			Method	Shell Vacuum Pump Oil S2 R 100
Flash Point COC		°C	ASTM D92	265
Pour Point		°C	ASTM D97	-9
Neutralisation value		mg KOH/g	ASTM D974	<0.04
Ash, sulphated		%	DIN 51575	<0.01
Conradson Carbon Residue		%m	DIN 51551	0.05
Vapour pressure versus temperature, Isoteniscope	@0°C	mbar	ASTM D2879	8.40E-06
Vapour pressure versus temperature, Isoteniscope	@25°C	mbar	ASTM D2879	5.33E-05
Vapour pressure versus temperature, Isoteniscope	@50°C	mbar	ASTM D2879	4.67E-04
Vapour pressure versus temperature, Isoteniscope	@100°C	mbar	ASTM D2879	8.40E-03
Vapour pressure versus temperature, Isoteniscope	@150°C	mbar	ASTM D2879	0.11
Vapour pressure versus temperature, Isoteniscope	@200°C	mbar	ASTM D2879	0.53

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

- **Health and Safety**

Shell Vacuum Pump Oil S2 R 100 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

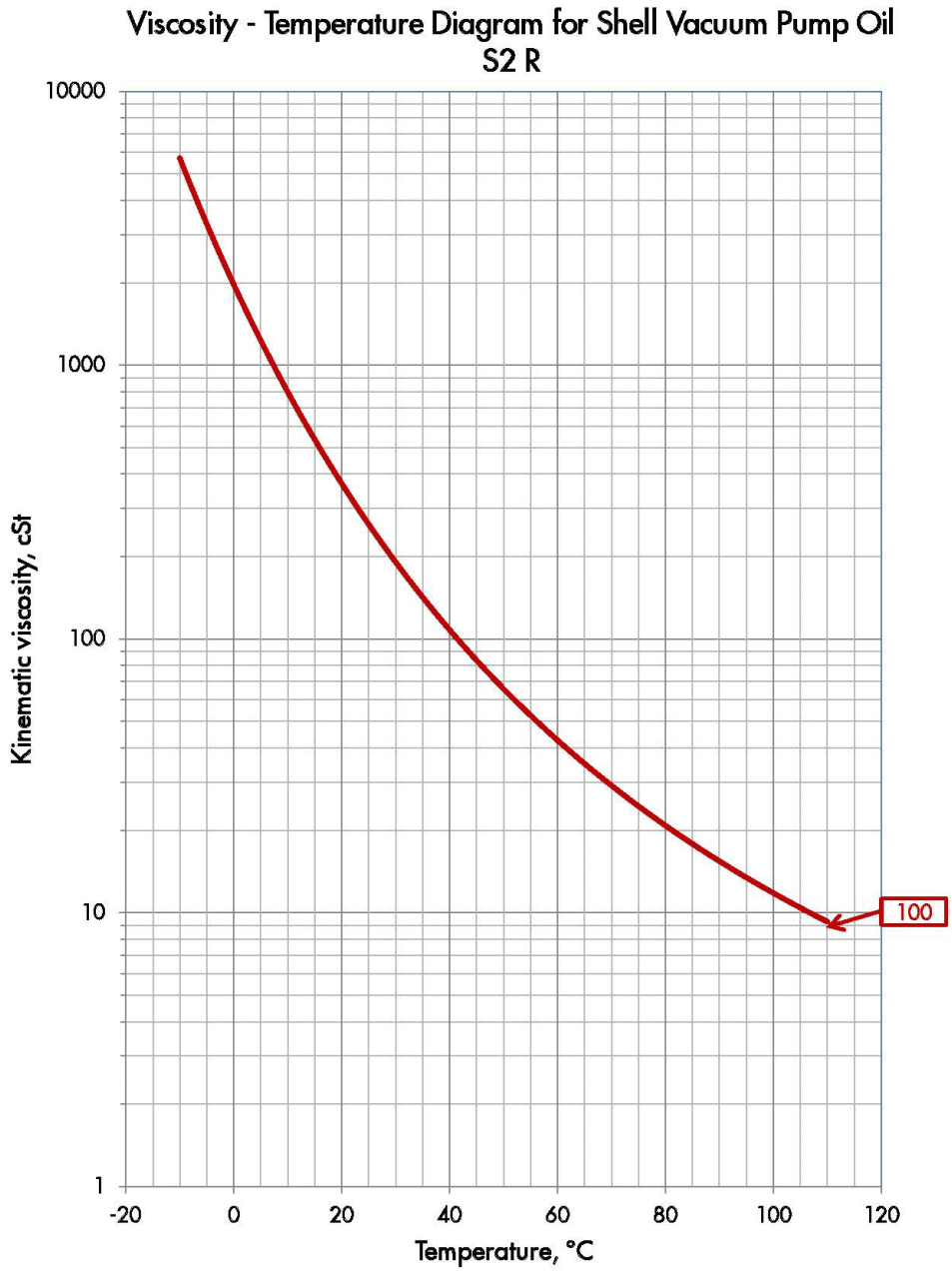
- **Protect the Environment**

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

Additional Information

- **Advice**

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


Viscosity - Temperature Diagram for Shell Vacuum Pump Oil S2 R
Kinematic viscosity, cSt
10000
1000
100
10
1
-20
0
20
40
60
80
100
120
Temperature, °C
100