Technical Data Sheet

Formerly Known As: **Shell Spirax ST 80W-140**

Shell **Spirax** ***S3 AS 80W-140***

High performance, GL-5 axle oil for Scania

Shell Spirax S3 AS 80W-140 is designed for use in a wide variety of automotive axle units subjected to heavy duty conditions. The use of high performance additive systems and selected base oils allows extended oil drain capability in some applications. In addition, Spirax S3 AS 80W-140 may be used in non-synchronised heavy duty gearboxes and certain synchronised heavy duty gearboxes where oils meeting API GL-5 or MT-1 are specified.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Comprehensive components**

  Specially selected additives impart very good anti-wear, anti-rust characteristics and oxidation stability.

- **Improved oxidation stability**

  Shell Spirax S3 AS 80W-140 exceeds the enhanced oxidation stability requirements of the latest API gear oil specifications.

- **Enhanced spalling resistance**

- **Improved filterability**

  Shell Spirax S3 AS 80W-140 has been especially developed for use in axles fitted with oil filtration units. The special formulation ensures optimum flow through the filter throughout the oil drain interval.

Main Applications



- **Automotive transmissions**

  Shell Spirax S3 AS 80W-140 is suitable for most modern heavy-duty axles utilising hypoid gears and offers extended oil drain potential in specific equipment.

Shell Spirax S3 AS 80W-140 is also recognised by certain manufacturers* as being suitable for use in heavy-duty manual gearboxes. Spirax S3 AS 80W-140 may be suitable for other automotive transmission units operating under high speed/shock load, high speed/low torque and low speed/high torque conditions.

*Warning: As with other lubricants meeting API GL-5 - do not use in manual transmissions where GL-4 oils are specified.

Specifications, Approvals & Recommendations

- Scania : STO 1:0
- RVI : Recommended for the latest heavy duty axle P1370 applications.
- API Service Classification : GL-5, MT-1
- ZF TE-ML 12E, 05A, 16C, 21A

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

Typical Physical Characteristics

Properties			Method	Shell Spirax S3 AS 80W-140
SAE Viscosity Grade			SAE J 306	80W-140
Kinematic Viscosity	@40°C	mm^2/s	ISO 3104	237
Kinematic Viscosity	@100°C	mm^2/s	ISO 3104	24.8
Viscosity Index			ISO 2909	132

Properties			Method	Shell Spirax S3 AS 80W-140
Density	@15°C	kg/m³	ISO 12185	904
Flash Point (COC)		°C	ISO 2592	185

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 Spirax S3 AS 80W-140 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 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.