Technical Data Sheet

Shell **Spirax** *S3 AX 80W-90*

High Performance, GL-5 Axle Oil for General Applications

Shell Spirax S3 AX 80W-90 is a high performance, API GL-5 gear and axle oil for moderate to heavily loaded on and off-road driveline applications requiring SAE 80W-90 oil.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Multiple vehicle applications**
  High performance fluid for API GL-5 applications that may require SAE 80W-90, 90, or 80W fluids. May be used in some SAE 75W-90 applications where low temperature performance is not needed.
- **Longer oil drain capability**
  Long life additives ensure long-term protection of the gears and high oxidation resistance so providing extended drain capability.
- **Longer transmission life**
  Outstanding pitting, scoring and wear protection.

Main Applications



- **Automotive differentials**
  Automotive gearboxes, differentials and hypoid gear sets in motorcycle, passenger car, commercial vehicles, off-road construction and agricultural equipment.
- **General gear sets**
  Ancillary equipment gear sets and some industrial equipment.

Specifications, Approvals & Recommendations

- DTFR 12B130
- MAN: 342 Type M2
- ZF TE-ML 05A, 12E, 16C, 17B, 19B, 21A
- API Service Classification : GL-5
- US Military : MIL-L-2105D
- Shell Spirax S3 AX 80W 90 meets the service fill requirements of DTFR sheet 12B100.
- Exceeds the requirements of API GL-5, MT-1.

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

Typical Physical Characteristics

Properties			Method	Shell Spirax S3 AX 80W-90
SAE Viscosity Grade			SAE J 306	80W-90
Kinematic Viscosity	@40°C	mm^2/s	ISO 3104	169
Kinematic Viscosity	@100°C	mm^2/s	ISO 3104	16.8
Density	@15°C	kg/m^3	ISO 12185	900
Flash Point (COC)		°C	ISO 2592	220
Pour Point		°C	ISO 3016	-30

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 AX 80W-90 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 Safety Data Sheet, which can be obtained from https://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.