Technical Data Sheet

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

High Performance Manual Transmission and Gear Oil for MAN, ZF and other OEMs

Shell Spirax S3 G 80W-90 are long life gearbox oils designed to give new benefits based on improved levels of performance to meet the future requirements of gearboxes. Specially optimised mineral base oils and new additive technology improve lubrication of the drive train and potentially extend oil drain intervals.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- **Longer oil drain capability**

  Higher reserves of additives ensure long-term protection of the gears. Longer oil life as a result of higher oxidation stability also improves oil drain intervals.

- **Longer gear life**

  Clear improvement in protection against wear prevents premature failure. High oxidation resistance also prevents damaging deposit formation in the gears.

- **Greater efficiency**

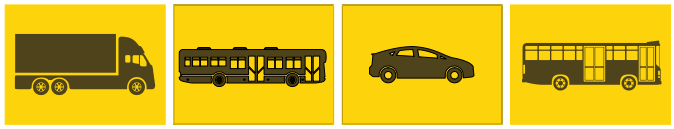
  Ideal shear-stable formulations give improved flow properties and shiftability at low temperatures. Optimised friction properties minimise power losses and wear, thereby also improving efficiency.

- **Seal Compatibility**

  Designed to be compatible with commonly used transmission seal materials, helping maintain seal performance and minimize the risk of fluid leakage.*

*Based on ASTM seal compatibility testing and/or OEM-specific seal evaluation procedures.

Main Applications



- **Automotive transmissions**

  Synchromesh gearboxes and medium loaded axle drives.

Specifications, Approvals & Recommendations

- MAN 341 Type E2
- ZF TE-ML 016A, 17A, 19A
- MAN 341 Type Z2
- ZF TE-ML 02B
- Eaton (ex US): meets
- Isuzu: meets
- API Service Classification GL-4

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

Typical Physical Characteristics

Properties			Method	Shell Spirax S3 G 80W-90
SAE Viscosity Grade			SAE J 306	80W-90
Kinematic Viscosity	@40°C	cSt	ASTM D445	160.5
Kinematic Viscosity	@100°C	cSt	ASTM D445	15.3
Density	@15°C	kg/m³	ISO 12185	895
Flash Point (COC)		°C	ISO 2592	215
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 G 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.