

Previous Name: Shell Donax TCS 10W-40

# Shell Spirax S6 CXME 10W-40

Premium Performance Off-Highway synthetic blend transmission oil

Shell Spirax S6 CXME 10W-40 oil is designed to provide operators with trouble free operation and maximum reliability for the lifetime of the equipment. Spirax S6 CXME 10W-40 meets the demanding requirements of modern transmission, differential gears, final drive, oil immersed brake, reduction gears and hydraulic systems fitted to heavy-duty off-highway in all climates.

# **DESIGNED TO MEET CHALLENGES**

# Performance, Features & Benefits

· Frictional performance and material compatibility

Highly consistent and durable friction performance when used with the advanced metallic and non-metallic materials found in modern systems. Minimal clutch slippage, smooth and quiet brake operation and trouble-free transmission operation.

### Anti-wear protection

The shear-stable synthetic blend SAE 10W-40 viscosity grades utilizes minimal viscosity index (VI) improvers and thickeners and give the best protection of heavily loaded components.

### • Low temperature characteristics

The synthetic blend 10W-40 is formulated to meet low temperature viscosity and fluidity requirements, providing excellent responsiveness of hydraulic components during start-up and low operating temperature conditions as well as the required protection at high operating temperatures.

· Optimum mechanical performance and long oil life

Wide-ranging protection for critical components, such as bronze friction discs in powershift transmissions, gears and bearings in final drives, differential units and reduction gears.

Vickers 35V25 hydraulic pump test

Excellent performance in this demanding test.

· Oxidation stability

Contains inhibitors to reduce oxidation and deposit formation. Protects both ferrous and non-ferrous metals from corrosion. Suppresses foaming, with improved flow properties at low temperatures, which enhances circulation and responsiveness.

### **Main Applications**



Shell Spirax S6 CXME 10W-40 oil is recommended for use in heavy duty off-highway equipment produced by the world's leading manufactures including but not limited to Caterpillar and Komatsu. It can also be used in equipment manufactured by Eaton, ZF, Dana, Rockwell amongst others in:

- · Powershift transmissions and drop boxes;
- Final drives, transfer boxes, differential gears and reduction gears;
- Oil immersed brakes;
- Hydraulic systems and hydrostatic drives.

# Specifications, Approvals & Recommendations

- Caterpillar TO-4, TO-4M
- ZF TE-ML 03C
- Suitable for use in applications where Allison C-4 type fluids are required.
- Shell Spirax S6 CXME 10W-40 oil is suitable for use in many powershift or manual transmissions, wet brake systems and some hydraulic systems including Komatsu.

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

# **Typical Physical Characteristics**

| Properties   |        |                   | Method     | Shell Spirax S6 CXME |
|--|--------|-------------------|------------|----------------------|
| SAE Viscosity Grade                                    |        |                   | SAE J-300  | 10W-40               |
| Kinematic Viscosity                                    | @104⁰F | mm²/s             | ASTM D445  | 100                  |
| Kinematic Viscosity                                    | @212ºF | mm²/s             | ASTM D445  | 14.11                |
| Shear Stability (Kinematic Viscosity after 20 hrs KRL) | @212ºF | mm²/s             | CEC L-45   | 13.3 (-5.0%)         |
| Dynamic Viscosity (Brookfield)                         | @-4°F  | mPa.s             | ASTM D2983 | 11500                |
| Dynamic Viscosity (Brookfield)                         | @-22⁰F | mPa.s             | ASTM D2983 | 50000                |
| Density  | @15ºC  | kg/m <sup>3</sup> | ASTM D4052 | 881                  |
| Flash Point (COC)                                      |        | °F                | ASTM D92   | 460.4                |
| Pour Point   |        | °F                | ASTM D97   | -32.8                |

These characteristics are typical of current production. While future production will conform to Shell's specification, variations in these characteristics may occur.

# Health, Safety & Environment

## · Health and Safety

Shell Spirax S6 CXME 10W-40 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 authorized collection point. Do not discharge into drains, soil or water.

# Additional Information

# • Advice

Product recommendations for applications and specifications not covered here may be obtained from your Shell representative.