SHELL TURBO® Oil SG 32

Synthetic industrial gas turbine lubricant

SHELL TURBO® Oil SG 32 is a synthetic polyalphaolefin based fluid formulated to meet the demands of high output stationary industrial gas turbines. It is blended with carefully selected additives to impart anti-wear, high temperature oxidation and corrosion inhibition, as well as rust protection.

Performance Features and Benefits

- Good low temperature fluidity resulting in low wear and low power consumption during startup
- High viscosity index and low pour points resulting in performance over a wide temperature range
- High load carrying and anti-wear characteristics
- Excellent oxidation stability
- Compatibility with petroleum based lubricants and seals, paints, gaskets, and hoses normally used with petroleum based lubricants

Main Applications

- Large heavy duty industrial gas turbines
- Smaller gas turbines, including aircraft-type gas turbines used in stationary industrial application where an ISO 32 viscosity grade is recommended

Advice on applications not covered in this handbook may be obtained from your Shell representative.

Specifications, Approvals, and Recommendations

- Allison Gas Turbine Division EMS-45
- Cooper Industries Gas Turbines
- General Electric Company Gas Turbines
- Solar Turbines ES 9-224
- Westinghouse Gas Turbines

Handling and Safety Information

For information on the safe handling, storage, or use of this product, refer to its Material Safety Data Sheet at http://www.epc.shell.com/. If you are a Shell Distributor, please call 1+800-332-6457 for all of your service needs. All other customers please call 1+800-237-8645 for all of your service needs.

Protect the Environment

Do not discharge into drains, soil, or water.

Typical Physical Characteristics

SHELL TURBO® Oil SG 32	
Specific Gravity, 15.6°C, D1298	0.860
Viscosity:, D 445 @ 40°C, cSt @ 100°C, cSt	 32.0 5.65
Viscosity Index, D 2270	130
Flash Point, COC, °C (°F), D 92	243 (470)
Fire Point, COC, °C (°F), D 92	274 (525)
Autoignition, °C (°F), D 659	388 (730)
Pour Point, °C (°F), D 5949	<-59 (-75)
Copper Corrosion, D 130	1b
Acid Number, mg KOH/g, D 974	0.10
Rust Protection (salt water), D 665B	Pass
Foaming Tendency, vol/collapse, D 892 Seq. I, ml Seq. II, ml Seq. III, ml	 0/0 0/0 0/0
Four-Ball Wear , 75°C, 120 RPM, 40 kg,1hr, mm^2	0.45
Rotating Bomb Oxidation Test, minutes, D 2272	1980
Oxidation-Corrosion, 347°F, 72 hrs, FTM 5308 Std. 791 Viscosity Change, % TAN Change, mg KOH Metal Weight Change, mg/cm^2 Copper Iron Silver Magnesium	 3.9 0.10 0.08 0.04 0.00 0.00
Water, ppm, D 95	<100

These characteristics are typical of current production. While future production will conform to Shell specifications, variation in these characteristics may occur.