



Quality, service, and customer satisfaction is our driving force.



AFRIQ TURBINE 32 FULL SYNTHETIC

DESCRIPTION

Afriq Turbine 32 Full Synthetic are recommended for the lubrication of land-based gas turbines, particularly units under 3,000 hp used as standby power units, and in some types of total energy and combined cycle (gas/steam) systems. **Afriq Turbine 32 Full Synthetic** provides excellent anti-wear properties as well as protection against rust and corrosion plus good air release performance and resistance to foaming. **Afriq Turbine 32 Full Synthetic** is designed specifically to meet the needs of the most severe industrial gas turbine applications with a nominal 10,000 hour TOST life. This product family is formulated with synthesized hydrocarbons and a unique additive system. This formula provides outstanding low temperature fluidity and exceptional resistance to degradation at high temperatures.

These characteristics help to provide superior resistance to thermal/oxidative degradation during the heat soaking period after shutdown and permit rapid oil circulation at low temperatures during start-up. Degradation resistance is a key attribute in avoiding harmful deposits that can interfere with lubrication supply to the bearings or foul critical servo-valves. This is a particular issue when gas turbines are running in cycling mode and experience multiple thermal stress cycles. Since low temperature fluidity and high viscosity index are inherent characteristics of the fluids, they resist changes in service as a result of mechanical shearing or repeated cycling from low to high temperatures. **Afriq Turbine 32 Full Synthetic** is fully compatible with mineral oils, but admixture will detract from their superior performance properties.

APPLICATION

Mobil SHC 800 Series turbine oils are designed specifically to meet the needs of the most severe industrial gas turbine applications and ancillary equipment. Specific applications include:

- Severe stationary gas turbine applications, particularly units under 3,000hp, for standby power generation
- Industrial gas turbines operating in low ambient and remote areas
- Total energy systems

BENEFITS

Afriq Turbine 32 Full Synthetic is recognised and appreciated around the world for their innovation and outstanding performance. Familiarity with evolving designs and operational conditions is a key input to the application of the best lubricant technology in the development of products that will provide the performance demanded by users.

One general trend over the years has been to higher power output designs, which can lead to greater thermal stress of the lubricant. This thermal exposure is exacerbated by cycling operation which is employed by gas turbine operators to manage the supply/demand balance of electrical power generation, which results in heat soak-back at each shut-down sequence. Resisting thermal degradation is thus a key property required of a modern gas turbine oil lubricant.



To combat high thermal exposure of the oil, we choose **Afriq Turbine 32 Full Synthetic** because of their exceptional thermal/oxidative resistance capabilities. Our formulators chose specific additives that would maximize the benefits of the synthetic base oils to provide exceptional oil life and deposit control and resistance to thermal and chemical degradation, as well as the balance of the performance features. The synthetic base oil also provides outstanding low temperature fluidity characteristics unmatched by mineral turbine oils and is a key benefit for remote, low temperature ambient applications.

Some of the benefits for this synthetic turbine oil is:

- Excellent low temperature fluidity:
Reliable flow and lubrication during cold starts, even at very low temperatures
- Naturally high Viscosity Index:
Improved equipment protection at high temperatures
- Very good resistance to foaming and good air release
Efficient system operation and less un-planned stoppages
- Excellent anti-wear performance
- Outstanding high thermal/oxidative stability and deposit control:
High level of resistance to heat soak-back after turbine shutdown
Less deposit build-up and improved reliability and lower maintenance costs
Long oil change life and lower product costs

APPROVALS

GE GEK 32568G
 GE GEK 101941A
 GE GEK 28143B
 Siemens TLV 9013 04
 Alstom HTGD 90 117
 MHI MSo4-MA-CL003
 SOLAR ES 9-224 CLASS 1

TYPICAL PHYSICAL CHARACTERISTICS

ISO Viscosity Grade	32
Viscosity Index, ASTM D 2270	135
Pour Point, °C, ASTM D 97	<-54
Flash Point, °C, ASTM D 92	248
Specific Gravity @15 °C kg/l, ASTM D 4052	0.83
TOST life, ASTM D 943, hrs to 2NN	9500
Foam Test, ASTM D 892, Seq I, Tendency/Stability, ml/ml	10/0
Air Release	1
cSt @ 40° C	31.5
cSt @ 100° C	5.9