



## Gulf Crest EP

*Supreme performance turbine oils for geared and non-geared turbines*

### Product Description

**Gulf Crest EP** series are supreme performance turbine oils specially designed for use in geared and non-geared steam turbines, gas turbines and combined cycle gas turbines (CCGT) including the gas turbines operating at high temperatures. These oils are formulated with high quality severely hydroprocessed API Group II base oils and a proprietary ashless additive package containing anti-oxidants, FZG booster, corrosion inhibitors and metal deactivators. These oils possess outstanding thermal and oxidation stability, good load carrying capacity, excellent water separability, superior rust and corrosion inhibition, low foaming tendency, good air release properties and resistance to chemical degradation to provide excellent equipment protection, reliable operation, with reduced down-time and extended service life. These oils exceed the performance requirements of major gas and steam turbine manufacturers.

### Features & Benefits

- Outstanding thermal and oxidation stability prevents sludge formation, controls deposits and minimises oil degradation leading to reliable operation
- Superior anti-wear property and load carrying capability provide excellent protection for geared turbines
- Excellent water separation capability resists formation of emulsion and leads to easy removal of excess water from the lubrication system
- Effective rust and corrosion inhibitors provide long term protection to critical system components
- Good air release properties and foam control avoid erratic operation and pump cavitation leading to trouble free operation

### Applications

- Power generation gas turbines
- Combined cycle gas turbines (CCGT)
- Large heavy-duty industrial gas turbines
- Power generation and industrial steam turbines
- Turbines with heavily loaded gears
- Turbo compressors

### Specifications, Approvals & Typical Properties

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Properties mentioned are typical only and minor variations, which do not affect product performance, are expected to arise in normal manufacturing processes. Please follow equipment manufacturer's recommendations for performance level and viscosity grade. The Safety Data Sheet for this product is available from your nearest Gulf Distributor. Please consult our local representative if any further information is required.

The information contained herein is believed to be correct at the time of publication and may be subject to modification from time to time. It is the user's responsibility to verify that this data sheet is current prior to using the product. No warranty expressed or implied is given concerning the accuracy of the information or the suitability of products. Gulf Oil International reserves the right to modify and change its products and specifications without prior notice.

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<b>Meets the following Specifications</b>		<b>32</b>	<b>46</b>	<b>68</b>	<b>100</b>
ASTM D 4304, Type I (non-EP) and Type II (EP)		X	X	X	X
BS 489		X	X	X	X
DIN 51515 Part 1 (TD) and Part 2 (TG)		X	X		
ISO 8086 TSE, TGE, TSA and TGA		X	X		
Alstom HTGD 90117 V 0001T		X	X	X	
GEK 32568E/F		X			
GEK 46506e		X			
GEK 28143A		X	X		
GEK 107395a		X			
GEK 101941A		X			
Siemens TLV 901304		X	X		
Solar ES 9-224, Class II		X	X		
<b>Has the following Approvals</b>					
Siemens TLV 901304, Alstom HTGD 90117		X			
Siemens TLV 901304 and 901305 (for use in Siemens turbosets with and without gearbox)			X		
<b>Typical Properties</b>					
<b>Test Parameters</b>	<b>ASTM Method</b>	<b>Typical Values</b>			
Viscosity @ 40 °C, cSt	D 445	32.2	46.3	68.3	100.5
Viscosity Index	D 2270	105	104	104	98
Flash Point, °C	D 92	212	220	222	224
Pour Point, °C	D 97	-24	-21	-15	-15
Density @ 15°C, Kg/l	D 1298	0.852	0.855	0.858	0.862
Rust Test	D 665A/B	Pass	Pass	Pass	Pass
Copper Corrosion	D 130	1b	1b	1b	1b
Acid Number, mg KOH/g	D 974	0.1	0.1	0.1	0.1
Water separability, minutes to 3 ml emulsion @ 54 oC	D 1401	Pass	Pass	Pass	Pass
Foam Test, foam after 10 minutes of settling for all sequences	D 892	Nil	Nil	Nil	Nil
Air Release, minutes	D 3427	3	4	5	6
FZG, fail load stage	DIN 51354 Part II	10	10	10	10
Turbine Oil Stability Test, hrs	D 943	10,000+	10,000+	10,000+	-
RBOT, minutes	D 2272	1,000+	1,000+	1,000+	1,000+

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