

## Q8 Volta EP 32

Ultra-high performance turbine oil

### Description

Q8 Volta EP 32 is an ultra-high performance synthetic (Group III) turbine oil. This product is developed for use in steam and gas turbines as well as combined cycle applications, including geared turbines. Due to the outstanding oxidative and thermal stability Q8 Volta EP 32 is specifically suitable for extreme operating conditions and high-temperature gas turbine operations. Designed as part of the Q8Oils clean technology program to ensure superior varnish/deposit control and good load carrying capabilities in combination with long oil life.

### Applications

Industrial steam- and gas turbines, including geared turbines and combined cycle operations Hydroelectric turbines Circulation systems where turbine oil quality is required Centrifugal- and axial pumps, and turbo-compressors, where turbine oil quality is recommended

### Features

**Extended oil life**

### Benefits

Superior oxidative stability, guaranteeing long oil life under continuous and severe operating conditions

**Enhanced technology**

Engineered with superior air release properties, exceptional anti-foaming performance and rapid water separation to ensure problem-free service

**Lower operational costs**

One product that combines exceptional thermal stability as needed for severe duty gas turbines as well as superior water separability for high performance steam turbine operations

### Specifications & Approvals

|                  |                      |                      |                     |
|------------------|----------------------|----------------------|---------------------|
| ASTM             | D 4304, Type II (EP) | ISO                  | 6743-5 L-TGE        |
| Alstom Power     | HTGD 90117           | ISO                  | 6743-5 L-TGF        |
| British Standard | 489                  | ISO                  | 6743-5 L-TGSE       |
| Chinese Standard | GB 11120-2011        | ISO                  | 6743-5 L-TSE        |
| DIN              | 51515-1 L-TDP        | ISO                  | 8068                |
| DIN              | 51515-2 L-TGP        | JIS                  | K 2213 Type 2       |
| GE Energy        | GEK 101941           | MAN Turbo            | SPD 10000494596     |
| GE Energy        | GEK 107395           | Siemens              | MAT812108           |
| GE Energy        | GEK 120498           | Siemens              | TLV 9013 04         |
| GE Energy        | GEK 121608           | Siemens              | TLV 9013 05         |
| GE Energy        | GEK 28143            | Siemens Westinghouse | M-Spec 55125Z3      |
| GE Energy        | GEK 32568h           | Solar Turbines       | ES 9-224 (Class II) |
| GE Energy        | GEK 46506            | Turbomach            | ES 9-224 (Class II) |

## Properties

|                                      | Method    | Unit               | Typical          |
|--------------------------------------|-----------|--------------------|------------------|
| Appearance                           | Visual    | -                  | Bright and Clear |
| Colour                               | D 1500    | -                  | L 0.5            |
| ISO Viscosity Grade                  | -         | -                  | 32               |
| Kinematic Viscosity, 40 °C           | D 445     | mm <sup>2</sup> /s | 32.0             |
| Kinematic Viscosity, 100 °C          | D 445     | mm <sup>2</sup> /s | 5.9              |
| Viscosity Index                      | D 2270    | -                  | 132              |
| Total Acid Number                    | D 664     | mg KOH/g           | <0.03            |
| Pour Point                           | D 97      | °C                 | -12              |
| Flash Point, COC                     | D 92      | °C                 | 230              |
| Air Release, 50 °C                   | D 3427    | min                | 2                |
| Emulsion, Distilled Water, 54.4 °C   | D 1401    | -                  | 40-40-0 (5)      |
| Foam, 10 min settling, seq. 1-2-3    | D 892     | ml                 | 0/0/0            |
| Foam, 5 min blowing, seq. 1-2-3      | D 892     | ml                 | 0/0/0            |
| Rust Test, Proc. A and B, 24 h       | D 665     | -                  | pass             |
| Copper Strip, 3 h, 100 °C            | D 130     | -                  | 1                |
| FZG Test, A/8.3/90                   | DIN 51354 | load stage         | 9                |
| Zinc content                         | D 4951    | mg/kg              | < 5              |
| Oxidation Characteristics (TOST)     | D 943     | hrs                | > 10.000         |
| Oxidation Stability (RPVOT)          | D 2272    | min                | 1.150            |
| Modified Oxidation Stability (RPVOT) | D 2272    | %                  | 95               |

The figures above are not a specification. They are typical figures obtained within production tolerances.