

# **TERBIN EP**

ISO VG 32, 46, 68, 100

## **Product Description**

Premium industrial turbine oils formulated with high quality extreme pressure additive to enhance oil drain interval, water separability and foam formation protection. TERBIN EP provides an excellent protection for turbine with reduction gear sets and is officially approved by SIEMENS.

#### **Benefits**

- Enhanced oxidative and thermal resistance to extend oil drain periods.
- Enhanced wear and corrosion protection.
- Extra effective antifoam protection.

### **Applications**

- Recommended for water, steam, and gas turbines with reduction gear sets where extreme pressure or anti-wear protection is required.
- Suitable for various applications e.g. hydraulic control systems, vacuum pump, and general transmission systems where vanish protection, and rust and oxidation prevention are required.
- Especially designed for turbines that requires SIEMENS standard.

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Typical Characteristic	s					
Tests	Methods	Units		Results		
			32	46	68	100
Kinematic Viscosity at 40 °C	ASTM D445	mm²/s	32.95	46.35	68.23	93.19
Viscosity Index	ASTM D2270		114	109	101	92
Flash Point (COC)	ASTM D92	°C	228	232	240	250
FZG Scuffing Load (A/8.3/90)	ASTM D5182	Stage	>12	>12	>12	>12
Total Acid Number	ASTM D664	mgKOH/g	0.18	0.18	0.17	0.17
Rust Prevention	ASTM D665		Pass	Pass	Pass	Pass
Air Release Property at 50°C	ASTM D3427	min	1.2	2.6	5.3	1.9
Oxidation Stability	ASTM D943					
Time to 2.0 TAN		hr	>10,000	>10,000	>10,000	>10,000
Water separation	ASTM D1401		40-40-0 (15)	40-40-0 (10)	40-40-0 (15)	40-40-0 (5)

#### **Performance Standards**

- DIN 51515 Part 1 (L-TD)
- DIN 51524 Part 1 (HL)
- General Electric GEK 32568 K
- General Electric GEK 107395 A
- General Electric GEK 101941A (FZG/FLS =8)
- Siemens/KWU TLV 9013 04, 9013 05
- BS 489 (CIGRE)
- SOLAR ES9-224U
- ALSTOM HTGD 90117 V0001 U
- VOITH: directive D-0500.8 for VORECON variable speed planetary gears

### **Health and Safety**

This product shows no significant health or safety hazard when used under the recommended applications and suitable handling.

Avoid the direct contact. Wash immediately after contact. Health and safety information is available on the Safety Data Sheet (SDS) which can be obtained from http://pttlubricants.pttplc.com



Note: Data and information contained in this publication are based on standard test under laboratory conditions and/or performance test. To consider the use of PTT Lubricants' products in particular application, customer is responsible for determining whether product and information are appropriate for customer conditions or should consult with PTT Lubricants' technical service division. The procedure of using any lubricant may differ or change depended on different machines and their manuals. Therefore, we recommend to read, understand and review the latest SDS in order to ensure the use of product is accomplished safety.

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