

RENOLIN ETERNA

High quality turbine oils – new generation

Description

RENOLIN ETERNA turbine oils were developed for gas, steam, and expansion turbines as well as for turbo compressors with and without gearboxes based on the latest lubrication technology.

The excellent properties of the base oils produced in a special process are enhanced using a carefully selected additive system. RENOLIN ETERNA oils contain no organo-metallic compounds and are therefore ash-less. They provide a zinc-free wear protection.

Application

RENOLIN ETERNA is especially suited for use in turbine systems with a common control and lubricating oil circuit. It can also be used as a bearing and sealing oil in hydrogen-cooled generators.

RENOLIN ETERNA has excellent anti wear properties and excellent Vickers Vane Pump results, V104C.

RENOLIN ETERNA has excellent wear protection properties. The failure load stage is > 10 according to FZG test DIN ISO 14635-1.

Advantages

- High thermal stability
- Good viscosity-temperature behaviour
- Rapid air release
- No foaming
- Low pourpoint
- Good wear protection
- Excellent corrosion protection
- Good water separation behaviour

Specifications

RENOLIN ETERNA 32/46 are approved by:
Siemens Power Generation

The RENOLIN ETERNA range also meets and in many cases exceeds the requirements of:

- DIN 51515-1 (TD) with and without gearbox
- DIN 51515-2 (TG) with and without gearbox
- DIN 51524-2: HLP
- (DIN 51524-3: HVLP – with exception of the VI)
- GE GEK 28568 A
- GE GEK 32568 F
- GE GEK 32568 H
- GE GEK 101941 A
- GE GEK 107395 A
- Siemens TLV 901304
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- Siemens MAT 812109
- MAN Turbo AG – SP10000494596, Germany
- Solar ES 9-224 (Class I / Class II)
- MIL-PRF-17331 J



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Typical data:

Product name		32	46	68	
Properties	Unit				Test method
ISO VG		32	46	68	DIN 51519
Colour	-	0.5	1.0	0.5	DIN ISO 2049
Density at 15 °C	g/ml	0.842	0.846	0.851	DIN 51757
Kinematic Viscosity at 40 °C	mm ² /s	32	46	68	DIN EN ISO 3104
at 100 °C	mm ² /s	5.8	7.6	9.9	
Flashpoint	°C	220	220	230	DIN ISO 2592
Pourpoint	°C	- 15	- 15	- 15	DIN ISO 3016
Foaming					ASTM D 892
Sequ. I	ml	10/0	20/0	20/0	
Sequ. II	ml	10/0	10/0	10/0	
Sequ. III	ml	10/0	10/0	10/0	
Neutralisation number	mgKOH/g	0.12	0.12	0.12	DIN 51558-2
FZG mechanical gear test rig FZG A/8,3/90	Failure load stage	≥10	>10	>10	DIN ISO 14635-1
Air release at 50 °C	min	≤ 4	≤ 4	≤ 6	DIN ISO 9120
Water separation behaviour	s	< 50	< 60	< 150	DIN 51589
Demulsifying power at 54 °C	min	10	10	15	DIN ISO 6614
Steel corrosion (corrosion protection)	Degree of corr.	0-A 0-B	0-A 0-B	0-A 0-B	DIN ISO 7120
Corrosion effect with Cu	Degree of corr.		1-100 A24		DIN EN ISO 2160
RPVOT 150 °C	min	> 1,000	> 1,000	> 1,000	ASTM D2272
TOST Lifetime	h	> 20,000	> 20,000	> 20,000	DIN 51587



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We therefore recommend that you consult a FUCHS EUROPE SCHMIERSTOFFE GMBH application engineer to discuss application conditions and the performance criteria of the products before the product is used. It is the responsibility of the user to test the functional suitability of the product and to use it with the corresponding care.

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