

RENOLIN DTA

General R & O resistant oil.

Description:

RENOLIN DTA series is blended from highly refined, virgin base oils and high-tech additives. These oils have excellent oxidation & thermal stability, rust & corrosion protection, anti-foaming, air-release and demulsification properties. They can be used in hydraulic systems and gearboxes requiring mild EP properties. The ISO VG 32, 46, 68 grades are specially developed for steam and gas turbine systems meeting GEK 32568F.

Specifications & Performance Levels

- DIN 51524-1 HL
- DIN 51517-2 CL
- GEK 32568 F
- BS 489 (CIGRE)
- GEK 101941 A
- Siemens/KWU TLV9013/04-01

Features

- One product for steam & gas turbines and high pressure compressors (with or without gearboxes)
- Excellent Oxidation & thermal stability
- Rust & Corrosion protection
- Good water separation properties
- Good air release properties

- No foaming
- Good load carrying capacity
- Excellent TOST and RPVOT (RBOT) values
- Meets severe specifications of GEK 32568 F

Applications:

- For lubrication of steam and gas turbines in severe operating conditions (with or without gearboxes).
- For high pressure compressors.
- Journal bearings.
- Hydraulic systems.
- Gearboxes requiring mild EP properties.
- Control units.
- Pumps.
- Closed circulation systems.
- General lubrication of machines.
- Bearing lubrication of paper manufacturing & calendaring machines and central lubrication of rolling machines.

RENOLIN DTA series, lower viscosity grades (ISO 32, 46, & 68) are used for turbines & compressors and higher viscosity grades are used for higher loads, higher temperatures and low speed applications.

CHARACTERISTICS

Properties	Units	Values						Test Methods
ISO VG		10	15	22	32	46	68	DIN 51519/ ISO 3448/ ASTM D-2422
Density @ 35 °C	Kg/m ³	842	845	855	863	868	871	ASTM D-4052
Colour	-	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	ASTM D-1500
Viscosity @ 40 °C	mm ² /s	10.6	15.4	22.0	32.8	46.4	68.9	ASTM D-445
Viscosity @ 100 °C	mm ² /s	3.0	4.0	4.0	5.0	7.0	9.0	ASTM D-445
Viscosity Index	-	124	111	102	103	100	100	ASTM D-2270
Total Acid Number	mg KOH/g	0.12	0.12	0.12	0.12	0.12	0.12	ASTM D-664
Flash Point	°C	186	192	200	230	238	240	ASTM D-92
Pour Point	°C	-27	-27	-9	-12	-6	-6	ASTM D-97
Air Release	min.	-	-	-	5.0	5.0	5.0	DIN 51381/ IP 313
Foaming Sequence I Sequence II Sequence III	ml/ml	20/0 15/0 20/0	20/0 10/0 20/0	20/0 10/0 15/0	15/0 10/0 15/0	15/0 10/0 15/0	15/0 15/0 15/0	ASTM D-892
Demulsibility	ml/ml/ml (min)	40-40-0 15	40-40-0 20	40-40-0 20	40-40-0 15	40-40-0 15	40-40-0 15	ASTM D-1401
Rust Inhibition, Iron protection	rating	Pass	Pass	Pass	Pass	Pass	Pass	ASTM D-665A
Corrosion, Copper strip, 3hrs @ 100°C	rating	1a	1a	1a	1a	1a	1a	ASTM D-130
FZG gear test (A/8.3/90) Failure load stage	-	10	10	10	10	10	10	DIN 51354
TOST life, Time to 2 TAN	hrs	>3500	>3500	>3500	>3500	>3500	>3500	ASTM D-943
RPVOT (RBOT)	min.	>900	>900	>900	>900	>900	>900	ASTM D-2272
CIGRE Test Total Oxidation Products Sludge Contents of TOP	% g/100ml	0.3 0.16	0.3 0.16	0.3 0.16	0.3 0.16	0.3 0.16	0.3 0.16	IP 280
Ash oxide	%	Nil	Nil	Nil	Nil	Nil	Nil	ASTM D-482

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While the information and figures given here are typical of current production and confirm to specification, minor variations may occur. No warranty expressed or implied is given concerning the accuracy of the information or the suitability of the product

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ISO 9001:2008
ISO 14001:2004
OHSAS 18001:2007
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PRODUCT INFORMATION



Characteristics (continue...)

Properties	Units	Values						Test Methods
ISO VG		100	150	220	320	460	680	DIN 51519/ ISO 3448/ ASTM D-2422
Density @ 35 °C	Kg/m ³	877	880	885	890	894	894	ASTM D-4052
Colour	-	<2.0	<2.5	<2.5	<3.0	<3.0	<5.0	ASTM D-1500
Viscosity @ 40 °C	mm ² /s	99	150	220	320	460	680	ASTM D-445
Viscosity @ 100 °C	mm ² /s	11	15	19	24	31	39	ASTM D-445
Viscosity Index	-	95	97	97	97	102	99	ASTM D-2270
Total Acid Number	mg KOH/g	0.15	0.15	0.15	0.15	0.15	0.15	ASTM D-664
Flash Point	°C	240	244	250	260	290	310	ASTM D-92
Pour Point	°C	-9	-9	-9	-9	-9	-6	ASTM D-97
Air Release	min.	-	-	-	-	-	-	DIN 51381/ IP 313
Foaming Sequence I	ml/ml	15/0	15/0	15/0	10/0	15/0	25/0	ASTM D-892
Sequence II		20/0	15/0	15/0	15/0	20/0	30/0	
Sequence III		15/0	10/0	15/0	10/0	20/0	30/0	
Demulsibility	ml-ml-ml (min)	40-40-0 15	40-40-0 15	40-40-0 30	40-40-0 20	40-40-0 25	40-40-0 30	ASTM D-1401
Rust Inhibition, Iron protection	rating	Pass	Pass	Pass	Pass	Pass	Pass	ASTM D-665A
Corrosion, Copper strip, 3hrs @ 100°C	rating	1b	1b	1b	1b	1b	1b	ASTM D-130
FZG gear test (A/8.3/90)	-							DIN 51354
Failure load stage		10	10	10	10	10	10	
TOST life, Time to 2 TAN	hrs	-	-	-	-	-	-	ASTM D-943
RPVOT (RBOT)	min.	-	-	-	-	-	-	ASTM D-2272
CIGRE Test Total Oxidation Products	%wt	-	-	-	-	-	-	IP 280
Sludge Contents of TOP	g/100ml							
Ash oxide	%	Nil	Nil	Nil	Nil	Nil	Nil	ASTM D-482

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