

PRODUCT DESCRIPTION

Kamaz Pullex, 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. Turbine oils contain no organo-metallic compounds and are therefore ash-less. They provide a zinc-free wear protection.

APPLICATION

Kamaz Pullex 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. Kamaz Pullex has excellent anti wear properties and excellent Vickers Vane Pump results, V104C.

Kamaz Pullex has excellent wear protection properties. The failure load stage is 12 according to FZG test DIN ISO 14635-1. Kamaz Pullex shows excellent roller bearing wear protection. FE8 test is passed with excellent result.

Kamaz Pullex can be used as CLP (EP) gear oil according to DIN 51517-3.

MEETS REQUIREMENTS

DIN 51515-1 (TD) with and without gearbox	Siemens MAT 812109
DIN 51515-2 (TG) with and without gearbox	MAN Turbo AG – SP10000494596, Germany
GE GEK 28568 A	Solar ES 9-224 (Class I / Class II)
GE GEK 32568 F	MIL-L-17672
GE GEK 32568 H	DIN 51517-3 (CLP gear oil)
GE GEK 101941 A	ISO 8068
GE GEK 107395 A	B5 489
Siemens TLV 901304	CEGB 207001
Siemens TLV 901305	

TYPICAL TEST DATA

PROPERTY	TEST METHOD	32	46	68
Colour	DIN ISO 2049	0.5	1.0	0.5
Density at 20 °C, g/ml	DIN 51757	0.842	0.846	0.851
Kinematic viscosity at 40 °C, mm ² /s	DIN EN ISO 3104	32	46	68
Kinematic viscosity at 100 °C, mm ² /s	DIN EN ISO 3104	5.8	7.6	9.9
Viscosity index	DIN ISO 2909	126	132	120
Flash Point, °C	DIN ISO 2592	220	220	230
Pour Point, °C	DIN ISO 3016	-15	-15	-15
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	DIN 51558-2	0.12	0.12	0.12
FZG mechanical gear test rig	DIN ISO 14635-1	12	12	12
FZG A/8.3/90 Failure load stage				
Air release at 50 °C	DIN ISO 9120	< 4	< 4	< 6
Water separation behaviour s	DIN 51589	< 50	< 60	< 150
Demulsifying power at 54 °C min	DIN ISO 6614	10	10	15
Steel corrosion (corrosion protection)	DIN ISO 7120	0-A	0-A	0-A
Degree of corr.		0-B	0-B	0-B
Corrosion effect with Cu	DIN EN ISO 2160	1-100 A24	1-100 A24	1-100 A24
Degree of corr.				
RPVOT 150 °C min	ASTM D2272	> 1,000	> 1,000	> 1,000
TOST Lifetime h	ISO 4263/ASTM D 943	> 20,000	> 20,000	> 20,000
FE8 roller bearing test, D 7.5/80-80	DIN 51819-3			
- roller bearing wear mg		< 5	< 5	< 5
- cage wear mg		< 200	< 200	< 200

The information given in the typical data does not constitute a specification but is an indication based on current production and can be affected by allowable production tolerances.