

Product	Sinopec Long Service Life Turbine Oil
Summary	Product description Sinopec Long Service Life Turbine Oil is a line of products formulated with high-quality hydrogenated base oils and selective additives. Excellent oxidation stability properties, which reduce sludge and deposit formation, enable this product to be used as a long service life steam/gas turbine oil. Available in ISO viscosity grades 32, 46 and 68.

Applications

Sinopec Long Service Life Turbine Oil is suitable for use in:

- Large supercritical-steam turbines used in power generation.
- Light-duty gas turbines.
- Large to moderate marine turbines.
- Industrial steam, gas and water turbines.
- Combined cycle turbines.

Features and benefits

- Excellent control of sludge, deposits and varnish prevents servo-valve sticking and blocking, ensures smooth operation and extends oil service life.
- Excellent water separation properties ensure that any water contamination can be easily separated from the oil, protecting equipment against rusting and corrosion and extending oil life.
- Good air release properties protect against air entrainment, ensure optimum oil film thickness and protect equipment components from cavitation.
- Good antifoaming properties avoid the build up of foam, and reduce oil leakage from the system.
- Excellent anti-rust and corrosion prevention properties protect equipment from rusting and corrosion, and extend equipment life.

Product Data Sheet

Typical data

Sinopec Long Service Life Turbine Oil			
ISO viscosity grade	32	46	68
Kinematic viscosity of base oil, ASTM D 445			
cSt @ 40°C	33.21	45.15	64.29
cSt @ 100°C	6.086	7.185	8.866
Viscosity index of base oil, ASTM D 2270	132	120	112
Air release at 50°C, min, ASTM D 3427	1.7	3.5	5.5
Foaming characteristics, sequences 1, 2 and 3, ASTM D 892	10/0 10/0 10/0	10/0 10/0 10/0	10/0 10/0 10/0
Demulsibility @ 54°C, time to 3 ml emulsion, min, ASTM D 1401	8	10	10
Neutralisation number, mg KOH/g, ASTM D 974	0.07	0.1	0.1
Oxidation stability, time to 2 mg KOH/g, hours, ASTM D 943	>10,000	>10,000	>10,000
Oxidation stability, RPVOT @ 150°C, min, ASTM D 2772	1,200+	1,200+	1,200+
Rust prevention, ASTM D 665			
distilled water	pass	pass	pass
synthetic sea water	pass	pass	pass
Copper corrosion, 3 hours @ 100°C, ASTM D 130	1b	1b	1b
Pour point, °C, ASTM D 97	-16	-16	-13
Flash point (COC), °C, ASTM D 92	228	230	230
Density @ 15°C, kg/l, ASTM D 4052	0.8417	0.8506	0.8641

These data are given as an indication of typical values and not as exact specifications.

Industry and OEM specifications

Sinopec Long Service Life Turbine Oil meets the performance requirements of the following industry specifications:	
ASTM	4304 Rev A Type I
ASTM	4304 Rev A Type III
DIN	51515 L-TD
DIN	51515 L-TG
GB ¹	11120-89 (L-TSA)
ISO	8068(TSA)
ISO	8068(TGA)
JIS	K-2213 Type 2 w/add.

¹ Note: 'GB' standards are the National Standards of the People's Republic of China.

Product Data Sheet

Sinopec Long Service Life Turbine Oil meets the performance requirements of the following OEM specifications:	
Alstom Power	HTGD 90117
GE	GEK-28143A
GE	GEK-32568F
GE	GEK-46506D
Siemens Power Generation	TLV 9013 04
Siemens Power Generation	TLV 9013 05
Sinopec Long Service Life Turbine Oil holds the following formal OEM approvals:	
Alstom Power	HTGD 90117 (ISO VG 46)
Siemens Power Generation	TLV 9013 04 (ISO VG 46)
Siemens Power Generation	TLV 9013 05 (ISO VG 46)

Accuracy of information

Data provided in this PDS is typical and subject to change as a result of continuing product research and development. The information given was correct at the time of printing. The typical values given are subject to variations in the testing procedures and the manufacturing process may also result in slight variations. Sinopec guarantees that its lubricants meet any industry and OEM specifications referred to on this data sheet.

Sinopec cannot be held responsible for any deterioration in the product due to incorrect storage or handling. Information on best practice is available from your local distributor.

Product and environmental safety

This product should not cause any health problems when used in the applications suggested and when the guidance provided in the Material Safety Data Sheet (MSDS) is followed. Please consult the MSDS for more detailed advice on handling; MSDSs are available from your local distributor. Do not use the product in applications other than those suggested.

As with all products, please take care to avoid environmental contamination when disposing of this product. Used oil should be sent for reclamation/recycling or, if not possible, must be disposed of according to relevant government/authority regulations.

The SINOPEC trademark is registered and protected in Australia.

Issued: September 2011

© Sinopec 2011

36_Sinopec-Long-Service-Life-Turbine-Oil