SINOPEC
PERFORMANCE IN MOTION

Product Data Sheet

Product	**Sinopec TGF (M) 32 Extreme Pressure Gas Turbine Oil**
Summary	Product description Sinopec TGF (M) 32 Extreme Pressure Gas Turbine Oil is formulated with high-quality hydrogenated base oils and selected additives. It provides excellent high-temperature oxidation stability, sludge control and extreme pressure/antiwear performance, and is designed to meet Mitsubishi Heavy Industries' MS04-MA-CL003 specification.

Applications

Sinopec TGF (M) 32 Extreme Pressure Gas Turbine Oil is suitable for use in:

- High-temperature gas turbines with a gearbox and combined circulation unit.
- Blast furnace-gas firing gas turbines (BFGGT), used in the steel and petrochemical industries.
- Nuclear power generation gas turbines, used in pebble bed modular reactor (PBMR) technology.

Features and benefits

- Excellent high-temperature oxidation stability prolongs the life of the oil and increases service intervals.
- Excellent control of sludge, deposits and varnish prevents servo-valve sticking and blocking, and ensures smooth operation.
- Excellent extreme pressure and antiwear performance protects gears and bearings from wear, extending gearbox life and reducing maintenance costs.
- 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.
- Good water separation properties ensure that oil/water emulsions are not formed, and so meet the requirements of combined circulation gas turbines.
- Excellent anti-rust and corrosion prevention properties protect equipment from rusting and corrosion, and extend equipment life.

The information contained herein is subject to change without notification due to continuing research & development therefore properties may be subject to slight variations.

Typical data

Sinopec TGF (M) 32 Extreme Pressure Gas Turbine Oil	
ISO viscosity grade	32
Kinematic viscosity of base oil, ASTM D 445	
cSt @ 40°C	31.2
cSt @ 100°C	5.393
Viscosity index of base oil, ASTM D 2270	107
Air release at 50°C, min, ASTM D 3427	1.7
Foaming characteristics, sequences 1, 2 and 3, ASTM D 892	10/0 10/0 10/0
Demulsibility @ 54°C, time to 3 ml emulsion, min, ASTM D 1401	5
Neutralisation number, mg KOH/g, ASTM D 974	0.12
Oxidation stability, time to 2 mg KOH/g, hours, ASTM D 943	>10,000
Oxidation stability, RPVOT @ 150°C, min, ASTM D 2772	>1,000
FZG test (A/8.3/90), pass load stage	11
Rust prevention, ASTM D 665	
distilled water	pass
synthetic sea water	pass
Copper corrosion, 3 hours @ 100°C, ASTM D 130	1b
Pour point, °C, ASTM D 97	–12
Flash point (COC), °C, ASTM D 92	220
Density @ 15°C, kg/l, ASTM D 4052	0.8564

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

Industry and OEM specifications

Sinopec TGF (M) 32 Extreme Pressure Gas Turbine Oil meets the performance requirements of the following industry specifications:	
ASTM	4304 Rev A Type II
ASTM	4304 Rev A Type III
DIN	51515 L-TD
DIN	51515 L-TG
GB[1]	11120-89 (L-TSA)
ISO	8068(TGE)
ISO	8068(TSE)
JIS	K-2213 Type 2 w/add.

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

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Sinopec TGF (M) 32 Extreme Pressure Gas Turbine Oil meets the performance requirements of the following OEM specifications:	
Alstom Power	HTGD 90117
GE	GEK-101941A
GE	GEK-28143A
GE	GEK-32568F
GE	GEK-46506D
Mitsubishi Heavy Industries	MS04-MA-CL003
Siemens Power Generation	TLV 9013 04
Siemens Power Generation	TLV 9013 05
Sinopec TGF (M) 32 Extreme Pressure Gas Turbine Oil holds the following formal OEM approvals:	
Mitsubishi Heavy Industries	MS04-MA-CL003

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.

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