

MAK STEEL

Description

MAK Steel Oils have been formulated from highly refined, high viscosity base oil and fortified with selected ash-less type additives to impart high demulsibility, high oxidation stability and good anti-rust properties.

These oils are especially developed for Morgan bearings used in roll necks, where the conditions are very severe due to high temperature coupled with proximity to water and ingress of foreign materials.

Application

These oils are especially developed for Morgan Bearings used in Roll Neck of Steel Plants, where the conditions are very severe due to high temperature coupled with proximity to water and ingress of foreign materials

Benefits

- Outstanding Oxidation Stability: Lower rate of oxidation transmits to longer oil life and thus lower maintenance and cleaning costs and efforts.
- Excellent resistance against water: With immediate water separation from oil bearing health is automatically safeguarded
- Superior film strength even at high temperatures: Extra protection

Performance Level

- OEM specification MORGOIL (Revision 1.0 a)
- Indian specification for steel plants IPSS: 1-09-001-97.

Technical Specifications

PARAMETERS	ASTM	MAK STEEL 257	MAK STEEL 320	MAK STEEL 381
Kinematic Viscosity at 40 °C, cSt	D445	258	321	390
Viscosity Index	D2270	97	96	96
Emulsion Characteristics, ml (Oil-Water -Emulsion)	D1401	40-39-1 (15 mts)	40-39-1 (15 mts)	40-39-1 (15 mts)
Foaming Characteristics, ml, max Tendency/Stability Sequence –I Sequence –II Sequence –III	D892	Nil /Nil Nil /Nil Nil /Nil	Nil /Nil Nil /Nil Nil /Nil	Nil /Nil Nil /Nil Nil /Nil
Pour Point, °C, max	D97	-9	-9	-6
Flash Point, °C, min	D92	270	280	284
Cu Corrosion, max	D130	1a	1a	1a

PARAMETERS	ASTM	MAK STEEL 460	MAK STEEL 521	MAK STEEL 680
Kinematic Viscosity at 40 °C, cSt	D445	472.2	231	678
V.I.	D2270	95	95	95
Emulsion Characteristics, ml (Oil-Water -Emulsion)	D1401	40-39-1 (15 mts)	40-39-1 (15 mts)	40-39-1 (15 mts)
Foaming Characteristics, ml, max Tendency/Stability Sequence –I Sequence –II Sequence –III	D892	Nil /Nil Nil /Nil Nil /Nil	Nil /Nil Nil /Nil Nil /Nil	Nil /Nil Nil /Nil Nil /Nil
Pour Point, °C, max	D97	-6	-6	-6
Flash Point, °C, min	D92	290	292	298
Cu Corrosion, max	D130	1a	1a	1a

All the mentioned values are typical which may vary from batch to batch.

Storage and Handling

- Indoor Storage is always preferable
- Barrels should be kept horizontally with bunk position at 3 O'clock 9 O'clock position
- Barrels should be kept away from dusty or heated areas.
- During handling any contact with dust must be avoided

Health & Safety

This grade is not hazardous under normal conditions of use. For further guidance Material Safety Data Sheet (MSDS) may be referred.

Advice

For any further advice on applications or otherwise, please contact the nearest Bharat Petroleum territory office or Technical Services department at the address given below.

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