

# MAK TURBOL

## Description

MAK Turbols are formulated from hydroprocessed group two plus base oil and an additive system which provides an extremely high level of chemical and thermal stability, rapid and complete separation from water and a high resistance to emulsification. They provide excellent protection against rust and corrosion and also possess good antiwear properties.

## Application

These oils are recommended in pressure circulation lube oil system in steam / gas / water turbines as prime mover for electricity generation. These are also used for the lubrication of steam turbines used as prime movers in industries. They are used in the lubrication of bearings of rotary / turbo compressors. They are also used to lubricate bearings prone to water contamination where demulsibility becomes a very important parameter for selection of oil. This grade can also be supplied in Super Clean (Typically NAS 7 at plant level) HDPE Barrels.

## Benefits

- Good oxidation & thermal stability
- Provide excellent protection against rusting
- Ability to release entrained air rapidly
- Excellent demulsibility and resistance to foaming

## Performance Level

- IS 1012 : 2002
- DIN 51 515 Part 1
- BS 489 : 1983
- GEK 32568A

Our grades meet above specifications for the respective viscosity grades.

## Technical Specifications

Characteristics	ASTM	MAK TURBOL					
		32	37	46	57	68	100
Appearance	--	Clear fluid	Clear fluid	Clear fluid	Clear fluid	Clear fluid	Clear fluid
Density at 15° C	D1298	0.8512	0.8528	0.8552	0.8597	0.8612	0.8649
K.V at 40° C, cSt	D445	32.9	37.3	46.5	57.4	68.8	100.1
Viscosity Index	D2270	110	110	110	108	106	104
Pour Point, °C	D97	-18	-18	-18	-18	-15	-15
Flash Point, (COC), °C	D92	238	240	246	252	256	262
Copper Strip Corrosion Test at 100°C for 3 hrs.	D130	No corrosion	No corrosion	No corrosion	No corrosion	1a	1a
Foaming Characteristics/Stability	D892						
a) Sequence I		Nil / Nil	Nil / Nil	Nil / Nil	Nil / Nil	Nil / Nil	Nil / Nil
b) Sequence II		10 / Nil	10 / Nil	10 / Nil	10 / Nil	10 / Nil	10 / Nil
c) Sequence III		Nil / Nil	Nil / Nil	Nil / Nil	Nil / Nil	Nil / Nil	Nil / Nil

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 and Safety

These oils are not hazardous under normal conditions of use. For further guidance appropriate 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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