

# **MAK RR 10M**

## **Description**

This is Zinc free multigrade Railroad Engine oil developed for lubrication of diesel locomotives. The core package meeting LMOA Generation 5 specifications has been optimized with respect to TBN, keeping in mind reduced diesel Sulphur levels during last few years. This oil is formulated using the premium quality Group II+ base oils manufactured by Mumbai refinery.

## **Application**

MAK RR 10 M is recommended for use in diesel locomotives of Indian railways and shunting locomotives in steel, cement plants etc.

## **Benefits**

- Enhanced anti-wear control thereby reduced engine component wear
- Better oxidation stability increasing oil and engine life
- Enhanced dispersancy keeps engine & its components clean

## **Performance Level**

- Proprietary grade

## Technical Specifications

Characteristic	ASTM	MAK RR 10M
Appearance	--	Clear & Bright
Colour, Visual Observation	--	Brown
Density @15°C, gm/ml	D-1298	0.8688
K.V at 100° C, cSt	D-445	15.9
Viscosity Index	D-2270	118
Flash Point, (COC), °C	D-92	228
Pour Point, °C	D-97	-21
TBN, mg KOH/g of oil	D- 2896	10.2
Foaming Characteristics	D-892	
a) Sequence I		Nil / Nil
b) Sequence II		10 / Nil
c) Sequence III		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 & 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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