MAK PLATINUM PLUS 15W-40

Premium quality high performance heavy duty diesel engine oil

MAK Platinum Plus 15W-40 is a premium quality heavy duty diesel engine oil. It is developed to meet the stringent lubrication requirements of the modern low emission diesel engines. MAK Platinum Plus 15W-40 is designed to improve engine and oil durability by way of acid & corrosion control, reduced engine wear and deposit control. It is highly effective in the corrosive environment of Exhaust Gas Recirculation (EGR) and offers protection to after-treatment devices also. This oil exhibits better soot handling capability than that of API CI-4 oils. Its' shear stable performance additives helps control the viscosity increase or oil thickening, handle higher soot level and protect engine parts against wear and corrosion.

Applications:

MAK Platinum Plus 15W-40 is recommended for use in modern heavy duty low emission diesel engines manufactured by Tata Motors, Ashok Leyland, Volvo, Swaraj Mazda, Eicher etc. and meeting upto BS IV emission norms such as light and heavy duty trucks, buses, SUVs and passenger cars fitted with Exhaust Gas Recirculation (EGR) system. **This oil has the potential to extend drain interval to 100,000 kms in diesel engines fitted with centrifugal oil cleaner with proper maintenance practices and regular oil top-ups.** Alternatively, be guided by OEM's recommendation for oil drain period.

Performance/ Benefits:

Excellent Thermo-Oxidative Stability – excellent resistance to oil breakdown and deposit formation under high temperatures and aggressive driving conditions. Controls oil thickening. Extends oil life.

Excellent Soot Handling Capability – excellent capability to handle higher soot levels occurring in engines fitted with EGR technology. Dispersant additives keep soot particles finely dispersed in oil. Controls oil thickening and increases oil filter life.

Superior Deposit Control – advanced additive technology with balanced blend of detergents and dispersants cleanse engine components. Offers superior control of sludge and harmful deposit formation. Maintains optimum engine performance and enhances oil life.

Engine Protection – offers improved wear protection in the critical areas of engine like valve train, cylinder liner and piston rings. Improves durability and reliability of engine.

Corrosion Protection – provides excellent control of acids formed by oxidation of oil and combustion of fuel. Selected detergent additives neutralise them help prevent corrosion.

Shear Stable Chemistry – ensures viscosity control at high temperatures and high shear conditions.

Reduced Oil Consumption – high quality base oils with lower volatility have potential of lower oil consumption.

Performance Level/ Specification:

Meets the performance bench marks of

- API CI-4 PLUS
- Volvo VDS-3
- Global DHD-1
- Cummins 20078
- ACEA E7
- MB 228.3

Typical Physico-Chemical Data: MAK Platinum Plus 15W-40

Characteristics	Method	Value
SAE Grade	SAE J300	15W-40
Color	Visual	Brown
Appearance	Visual	Clear
Density @29.5^{O}C, g/cc	ASTM D1298	0.865
Kinematic Viscosity @40^{O}C, cSt	ASTM D445	103.8
Kinematic Viscosity @100^{O}C, cSt	ASTM D445	14.4
Viscosity Index	ASTM D2270	142
Copper Corrosion, 100^{O}C, 3 hrs.	ASTM D130	1a
Flash Point, ^{O}C	ASTM D92	232
Pour Point, ^{O}C	ASTM D97	-24
Foaming Tendency a) Sequence I b) Sequence II c) Sequence III	ASTM D892	 Nil/Nil 10/Nil Nil/Nil

Product and Application Development Deptt.
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Storage & Handling:
The product should be stored inside. Keep it properly sealed to avoid contamination. Avoid freezing and store under protected storage conditions.

Health & Safety:
It is unlikely to be hazardous when properly used in recommended applications. Contamination of the oil from other oils, greases, chemicals, dirty water etc. can occur during the use. It should be avoided. Regular monitoring of the in-use product is recommended.

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