Product Data Sheet

MAK DIAMOND PLUS 15W-40

High performance heavy duty diesel engine oil

MAK Diamond Plus 15W-40 is a superior quality heavy duty diesel engine oil. It is developed to meet the lubrication requirements of turbocharged and naturally aspirated heavy duty diesel engines operating under challenging conditions. This oil is formulated with high quality severely hydro processed Group II plus base oils and highly effective performance additives. MAK Diamond Plus 15W-40 is designed to improve engine and oil durability with the help of superior quality viscosity index improver and unique antiwear additive. It offers exceptional performances in terms of oxidation control, engine cleanliness and wear protection of heavily loaded engine components like valve train etc.

Applications:
MAK Diamond Plus 15W-40 is recommended for use in turbo charged and naturally aspirated diesel engines meeting BS-I, BS-II and BS-III emission standards of commercial vehicles such as heavy duty trucks, buses, LCVs of TATA Motors, ASHOK LEYLAND, MAHINDRA, VOLVO, SWARAJ MAZDA, EICHER etc.

Performance/ Benefits:
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.

Superior Deposit Control – 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.

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.

Reduced Oil Consumption – high quality base oils with lower volatility have potential of lowering oil consumption and reduced top ups.

Excellent Lubrication – the higher viscosity of the engine oil offers excellent lubrication and makes the engine run smoother.

Good TBN Retention – offers long-term protection against corrosion of ferrous and non-ferrous metals.

Excellent Shear Stability – ensures viscosity control at high temperatures and high shear conditions. Provides protection to the components.

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

Performance Level/ Specification:
Meets the performance bench marks of

- API CH-4
- MB 228.3

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

Characteristics	Method	Value
SAE Grade	SAE J300	15W-40
Color	Visual	Fluorescent Green
Appearance	Visual	Clear
Density @29.5^{O}C, g/cc	ASTM D1298	0.878
Kinematic Viscosity @40^{O}C, cSt	ASTM D445	107.60
Kinematic Viscosity @100^{O}C, cSt	ASTM D445	14.50
Viscosity Index	ASTM D2270	138
Copper Corrosion, 100^{O}C, 3 hrs.	ASTM D130	1a
Flash Point, ^{O}C	ASTM D92	232
Pour Point, ^{O}C	ASTM D97	-27
Foaming Tendency a) Sequence I b) Sequence II c) Sequence III	ASTM D892	 Nil/Nil 10/Nil Nil/Nil

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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