

# **MAK TITANIUM CK4 15W-40**

Premium engine oil designed with synthetic technology for ultra-low emission diesel engines

MAK Titanium CK4 15W-40 is a top tier low ash diesel engine oil designed with synthetic technology for latest generation ultra-low emission BS VI vehicles fitted with after treatment devices such as Diesel Particulate Filters (DPFs), Exhaust Gas Recirculation (EGR) and Selective Catalytic Reduction (SCR) devices etc. It is specially designed for robust engine performance and longer oil life. MAK Titanium CK4 15W-40 exhibits superior soot handling capabilities and outstanding control over soot induced thickening.

## **Applications:**

MAK Titanium CK4 15W-40 is recommended for use in new generation heavy duty buses, trucks and off highway vehicles meeting BS VI emission norms. This oil is backward compatible and can also be used wherever API CJ-4/CI-4 Plus/CI-4 engine oil is recommended.

#### **Performance/ Benefits:**

**Enhanced Protection to After-treatment Devices (ATD)** – offers protection to ATDs to enable them to perform efficiently.

**Outstanding Protection against Oxidation and Oil thickening** – offers excellent resistance to oil breakdown and deposit formation under high temperatures and pressure in modern engines. Controls oil thickening to ensure protection at elevated temperatures. Extends oil life.

**Outstanding Wear Protection** – offers superior wear protection to engine, even under higher speeds and temperatures, ensures longer engine life and reduced maintenance cost. Improves durability and reliability of engine.

**Excellent Soot Handling Capability** – excellent capability to handle higher soot levels occurring in engines fitted with EGR technology. Increases oil filter life.

## Performance Level/ Specification:

Meets the performance benchmarks of

- API CK-4
- ACEA E9
- MB 228.31
- VDS 4.5
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- Cummins 20086
- Caterpillar ECF 3
- Mack EOS-4.5
- Renault RLD-4

#### Typical Physico-Chemical Data: MAK Titanium CK4 15W-40

Characteristics	Method	Value
SAE Grade	SAE J300	15W-40
Color	Visual	Brown
Appearance	Visual	Clear
Density@ 29.5°C, g/cc	ASTM D1298	0.862
Kinematic Viscosity @100 <sup>o</sup> C, cSt	ASTM D445	106.5
Kinematic Viscosity @100 <sup>o</sup> C, cSt	ASTM D445	14.5
Viscosity Index	ASTM D2270	140
Copper Corrosion, 100 <sup>o</sup> C, 3 hrs.	ASTM D130	1a
Flash Point, <sup>o</sup> C	ASTM D92	240
Pour Point, <sup>o</sup> C	ASTM D97	-27
Foaming Tendency	ASTM D892	
a) Sequence I		Nil/Nil
b) Sequence II		10/Nil
c) Sequence III		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.