

TECHNICAL DATA SHEET

KATMOTO HD MAX CK-4 10W-40

Synthetic Heavy-Duty Diesel Engine Oil for Modern Engines

Product Name	KATMOTO HD MAX CK-4	SAE Grade	10W-40
Product Type	Synthetic Diesel Engine Oil	Performance Level	API CK-4/CJ-4 · ACEA E9-type
Series Positioning	Commercial / Heavy-Duty Diesel	Application	Modern Diesel (DPF/SCR/EGR) · Long Drain

Product Description

KATMOTO HD MAX CK-4 10W-40 is a synthetic heavy-duty diesel engine oil meeting API CK-4 for modern low-emission diesel engines with EGR, DPF and SCR after-treatment. Its synthetic formulation offers improved cold-start fluidity and fuel economy over monograde-base oils, with excellent soot dispersancy, wear protection, oxidation stability and deposit control for extended drain intervals.

Key Performance Features

Improved cold-start synthetic 10W base provides faster cold-start oil flow and reduced wear.	Outstanding soot control advanced dispersancy controls soot thickening and wear in EGR diesels.
After-treatment compatible low-SAPS (ash ≤ 1.0%) protects DPF and SCR systems.	Oxidation & thermal stability resists thickening and deposits under high-load operation.
Extended drain capability stable performance supports OEM long drain intervals.	Backward compatible suitable for CJ-4 and CI-4 diesel applications.

Applications & Performance Level

Applications	Modern on- and off-highway heavy-duty diesel engines with EGR, DPF and SCR after-treatment where SAE 10W-40 API CK-4 oil is specified, including long-haul and severe-duty operation.
Specification	■ API CK-4 / CJ-4 / CI-4 — current heavy-duty diesel category and backward compatibility. ■ ACEA E9-type — mid-SAPS heavy-duty performance for after-treatment-equipped diesels. ■ Cummins CES 20086 · Detroit DFS 93K222 — suitable for Cummins and Detroit modern diesel specifications. ■ Volvo VDS-4.5 · Mack EOS-4.5 — suitable for Volvo and Mack heavy-duty diesel applications. ■ Cat ECF-3 · MB 228.31 · MAN M3575 — suitable for Caterpillar, Mercedes-Benz and MAN diesel specifications.
OEM Suitability	Modern Cummins, Detroit, Volvo, Mack, Caterpillar, Mercedes-Benz, MAN and Paccar diesel engines specifying SAE 10W-40 API CK-4. Use only where SAE 10W-40 CK-4 is specified by the manufacturer.
Important Notice	Use only where the engine manufacturer specifies SAE 10W-40 and a matching performance level. "Suitable for" does not mean official approval unless an approval license or certificate is separately issued.

Typical Technical Data - Heavy-Duty Formulation Target

Property	Test Method	Target Typical Value
Appearance / Color	Visual	Clear amber liquid

Property	Test Method	Target Typical Value
SAE Viscosity Grade	SAE J300	10W-40
Density @ 15°C	ASTM D4052	0.875 g/cm³
Kinematic Viscosity @ 40°C	ASTM D445	95.0 mm²/s
Kinematic Viscosity @ 100°C	ASTM D445	14.5 mm²/s
Viscosity Index	ASTM D2270	152
CCS Viscosity @ -25°C	ASTM D5293	6,800 mPa·s
MRV Viscosity @ -30°C	ASTM D4684	29,000 mPa·s
HTHS Viscosity @ 150°C	ASTM D4683	3.8 mPa·s
Pour Point	ASTM D97	-36°C
Flash Point, COC	ASTM D92	230°C
Total Base Number (TBN)	ASTM D2896	10.0 mg KOH/g
Sulfated Ash	ASTM D874	1.00 % mass
Phosphorus	ASTM D5185	0.110 % mass

Note: These are heavy-duty formulation target values benchmarked to major-brand 10W-40 API CK-4 synthetic heavy-duty diesel engine oils at a representative quality level. Final production values should be confirmed by the official KATMOTO TDS and laboratory test report.