

TECHNICAL DATA SHEET

KATMOTO HD PRO CI-4 20W-50

High-Temperature Heavy-Duty Diesel Engine Oil for Older Engines

Product Name	KATMOTO HD PRO CI-4	SAE Grade	20W-50
Product Type	Mineral-Based Diesel Engine Oil	Performance Level	API CI-4/CH-4 · ACEA E7-type
Series Positioning	Commercial / Heavy-Duty Diesel	Application	High-Temp / Heavy-Load Older Diesel

Product Description

KATMOTO HD PRO CI-4 20W-50 is a high-viscosity, high-temperature heavy-duty diesel engine oil meeting API CI-4 for older and high-mileage diesel engines operating under heavy load and in hot climates. Its high 20W-50 viscosity maintains a strong oil film in worn engines, with high-TBN acid control, robust soot handling and strong wear and deposit protection for durable performance in severe-duty operation.

Key Performance Features

Strong high-temperature film high 20W-50 viscosity maintains a robust film in hot, heavy-load diesels.	High-TBN acid control high reserve alkalinity neutralises combustion acids for long life.
Worn-engine protection high viscosity helps protect worn, high-mileage diesel engines.	Robust soot handling strong dispersancy controls soot thickening in older EGR diesels.
Hot-climate & heavy-load ideal for hot climates and severe-duty diesel operation.	Deposit & wear protection keeps engines clean and protects liners, bearings and valvetrain.

Applications & Performance Level

Applications	Older and high-mileage heavy-duty diesel engines operating under heavy load or in hot climates where SAE 20W-50 API CI-4 oil is specified, including severe-duty and high-temperature operation.
Specification	■ API CI-4 / CH-4 — heavy-duty diesel categories for older and EGR diesel engines. ■ ACEA E7-type — high-SAPS heavy-duty performance for non-DPF diesel engines. ■ Cummins CES 20078 · Mack EO-N — suitable for Cummins and Mack older diesel specifications. ■ Volvo VDS-3 · MB 228.3 — suitable for Volvo VDS-3 and Mercedes-Benz 228.3 applications. ■ Hot-climate / high-mileage — formulated for severe-duty, high-temperature diesel operation.
OEM Suitability	Older and high-mileage Cummins, Mack, Volvo, Mercedes-Benz and Caterpillar diesel engines in hot climates specifying SAE 20W-50 API CI-4. Use only where SAE 20W-50 CI-4 is specified by the manufacturer.
Important Notice	Use only where the engine manufacturer specifies SAE 20W-50 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	20W-50
Density @ 15°C	ASTM D4052	0.890 g/cm³
Kinematic Viscosity @ 40°C	ASTM D445	175 mm²/s
Kinematic Viscosity @ 100°C	ASTM D445	19.5 mm²/s
Viscosity Index	ASTM D2270	128
CCS Viscosity @ -15°C	ASTM D5293	7,000 mPa·s
MRV Viscosity @ -20°C	ASTM D4684	30,000 mPa·s
HTHS Viscosity @ 150°C	ASTM D4683	4.6 mPa·s
Pour Point	ASTM D97	-27°C
Flash Point, COC	ASTM D92	230°C
Total Base Number (TBN)	ASTM D2896	11.0 mg KOH/g
Sulfated Ash	ASTM D874	1.30 % mass
Phosphorus	ASTM D5185	0.120 % mass

Note: These are heavy-duty formulation target values benchmarked to major-brand 20W-50 API CI-4 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.