

BLUENERGY AZURE TITANIUM API CK-4 SERIES

Extra-High Performance Multigrade Diesel Engine Oil

PRODUCT DATA SHEET

Product Description

Bluenergy Azure Titanium API CK-4 series a high-performance, fully synthetic low-SAPS diesel engine oil is engineered using ultra-refined base oils and advanced additive technology to ensure superior operation in modern engines with emissions control systems. It is suitable for engines equipped with Diesel Particulate Filters (DPF), Selective Catalytic Reduction (SCR), and Diesel Oxidation Catalysts (DOC).

The oil can be used in both older and newer diesel engines for on-road and off-road applications, thanks to its backward compatibility with API CJ-4, and it also meets the requirements for gasoline engines calling for the API SN specification. Its specialized formulation provides exceptional wear protection, excellent high-temperature stability, strong TBN retention for extended service intervals, and outstanding engine cleanliness.

Features & Benefits

- **Superior oil consumption control** thanks to very low volatility, reducing the need for frequent top-ups during operation.
- **Exceptional oxidation and thermal stability** minimizes sludge formation and helps keep the engine clean.
- **Enhanced engine protection**, offering strong resistance against both corrosive and abrasive wear.
- **Improved shear stability** ensures the oil maintains its proper viscosity even under severe, high-temperature conditions.
- **Outstanding low-temperature pumpability** promotes easier cold starts and contributes to better fuel efficiency.
- **Robust TBN retention** enhances acid neutralization and corrosion protection, supporting extended drain intervals in both new and older engines using low-sulfur (500 ppm) or ultra-low-sulfur (15 ppm) diesel fuels.

Specifications

Bluenergy Azure Titanium API CK-4 series meets or exceeds following International and Builder specification:

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|---|----------------------------|
| • API CK-4, CI-4 Plus, CI-4, CH-4, SN, SM, SL | • Renault VI RLD-4 |
| • Detroit Diesel Power Guard 93K222 | • VOLVO VDS-4.5 |
| • ACEA E9/E7-16 | • JASO DH-2 |
| • CUMMINS CES 20086 | • MAN-3775/M 3677 |
| • CAT ECF-3 | • MB 228.51 (DTFR 15C110) |
| • Duetz DQC III-10 LA/JASO DH-2 | • MACK EO-S-4.5 FORD WSS - |
| M2C171-F1 | • MTU 2.1 |

Applications

Bluenergy Azure Titanium API CK-4 series is suitable for use in following:

- Automotive diesel engines.
- Passenger cars, SUVs, light trucks and vans.
- Naturally aspirated or turbo-charged engines.
- Fuel injected or indirect injection diesel engines fitted with blow-by recirculation systems

TYPICAL CHARACTERISTICS

Bluenergy Azure Titanium	Test Method	Units	10W30	10W40
Density @ 15 °C	ASTM D 4052	gm/cc	0.868	0.875
Viscosity @ 100 °C	ASTM D 445	cSt	10.4	14.4
Viscosity @ 40 °C	ASTM D 445	cSt	62.6	96
Viscosity Index	ASTM D 2270	-	155	155
Pour Point	ASTM D 97	°C	-36	-36
Flash Point (COC)	ASTM D 92	°C	215	236
Total Base Number	ASTM D 2896	mg KOH/g	9.6	9.6
Sulphated Ash	ASTM D 874	% wt	1.0	1.0
CCS Viscosity	ASTM D 5293	cP @-20	6060	6200

These characteristics are typical of current product methods whilst future production will confirm to Bluenergy lubricants specifications, variations in these physical characteristics may occur.

Protect the Environment

Take used oil to an authorized collection point or to be recycled. Do not discharge used or new oil into drains, soil or water.

Additional Information

Based on available information, this product is not expected to produce adverse effect on health when used for the

Applications referred to above and the recommendations provided in safety data sheet are followed. guidance on health and safety is available on the appropriate material safety data sheet(MSDS) which can be obtained from www.Bluenergylubes.com