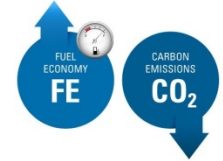




## PRODUCT BULLETIN

### CAM2 Synthetic Blend Super HD 10W-40 CK-4

PRODUCT # 217



**CAM2 Synthetic Blend Super HD 10W-40 CK-4** is a Low-SAPS, high performance heavy duty engine oil formulated to provide lubrication to modern, low emissions engines operating in moderate to severe conditions. It meets or exceeds nearly all the next generation OEM specifications including those from Ford, Cummins, Detroit Diesel, Mack, Volvo, Renault, Mercedes, MAN, Scania, and Deutz.

**Super HD CK-4 Synthetic Blend** motor oil protects engines with Emission Controls, EGR engines, as well as older engines. It is even recommended by leading heavy equipment manufacturers such as John Deere, Kubota, Massey Ferguson, JI Case, Allis Chalmers, and International Harvester.

This ground breaking **low-ash technology** provides improved wear protection, deposit and soot control, and improves oil consumption by neutralizing combustion by-products that cause harmful deposits<sup>1</sup>. Emission reduction systems such as DPFs (Diesel Particulate Filters) have shown increased productivity and extended catalyst life this all new technology.

The use of both highly refined mineral base oils combined with premium synthetics allow for optimum operating efficiency in both extreme hot and cold temperatures by reducing volatility due to burn off and providing instant starts in freezing conditions

Its high film strength and incredible thermal stability makes Super HD CK-4 fluids suitable for both on and off-road driving conditions. Turbochargers and intercoolers place increased thermal stress on engine components while low emission technologies increase fuel injection pressure demanding an oil with improved performance.

**Super HD 10W-40 CK-4** is an extended drain capable engine oil that also prevents viscosity loss from shearing and reduces friction leading to longer engine life and reduced maintenance costs. It can be recommended for new engines requiring CK-4 fluid and is backward compatible with API CK-4, CJ-4, CI-4 PLUS, CI-4, and CH oils.

#### Features

- **Low-ash formulation extends catalyst life**
- **2x better corrosion control than the new API standards**
- **Protects cylinders up to 80x more than Daimler standards<sup>2</sup>**
- **Improved protection from thermal and oxidative breakdown**
- **Excellent anti-wear, anti-foam, and anti-rust properties**
- **Up to 63% better soot control than previous CJ-4 formulations**
- **Protects piston rings up to 2.5x better than its CJ-4 predecessor**
- **Extremely shear stable preventing viscosity loss**
- **Compatible with both diesel and gasoline engines**
- **Improved TBN retention over previous diesel engine oils**

<sup>1</sup> Relative performance based on results from the Cummins ISM engine test run with SAE 10W-30, low HTHS.

<sup>2</sup> Relative performance based on results from the OM501LA engine test run with SAE 10W-30, low HTHS.

<sup>3</sup> Approval obtained



**Applications**

CAM2 Synthetic Blend Super HD CK-4 meets or exceeds the following OEM specifications:

- |                                   |                     |
|-----------------------------------|---------------------|
| API CK-4, CJ-4, CI-4+, CI-4, CH-4 | ALLISON TES-439     |
| ACEA E9-16                        | RENAULT RLD-4       |
| CUMMINS CES 20086, 81             | MB 228.31           |
| CAT ECF-3, ECF-2                  | MAN 3275 / 3575     |
| DETROIT DIESEL DFS93K222, 218     | MTU 2.1             |
| FORD POWERSTROKE (WSS-M2C171-F1)  | DEUTZ DQC III-10 LA |
| JOHN DEERE Tier IV Engines        | GLOBAL DHD-1        |
| MACK EOS-4.5                      | JASO DH-2           |
| VOLVO VDS-4.5                     | LDH-4               |

**TYPICAL CHARACTERISTICS**

|                             |         |
|-----------------------------|---------|
| Product Code                | 217     |
| SAE Grade                   | 10W- 40 |
| Viscosity @ 40°C, cSt       | 118     |
| Viscosity @ 100°C, cSt      | 15.4    |
| Viscosity Index             | 140     |
| Sulfated Ash, m%            | <1.0    |
| Pour Point, °C              | -39     |
| HTHS @ 150°C                | 3.5     |
| Flash Point, °C (COC)       | 229     |
| Total Base Number, mg KOH/g | 9.7     |
| Phosphorous, m%             | 0.113   |

The above characteristics are typical of current production. While production will conform to CAM2's specification, slight variations may occur and do not affect performance.

For more information, contact your CAM2 Representative or visit our website @ [www.CAM2.com](http://www.CAM2.com)

**Special handling, notices or warnings**

- Avoid contact with eyes
- Avoid prolonged or repeated contact with skin
- DO NOT INDUCE VOMITING