



TENA-FILM S.A.E. 15W-40 UNIVERSAL ENGINE OIL

TENA-FILM 15W-40 UNIVERSAL OIL is a unique blend of patented oil technology to meet the most stringent requirements for gasoline and diesel engines.

New diesel engine designs to meet emission requirements, adapt to low sulfur fuels, and retard injection. Timing can lead to increased soot loading in a lubricant, higher wear, oil thickening and filter plugging. In addition, fleet owners are demanding longer drain intervals and lower oil consumption. Oils that meet these new requirements are called HPD, for High Performance Diesel. Tena-film SAE 15W-40 Universal Engine Oil is approved for Mack EO-M Plus which meets more stringent tests than the API CK specification. The oil has better soot handling properties, greater resistance to oil thickening and lower wear rates.

1. This new oil technology provides the best service for both gasoline and high performance diesel service, reduces inventory and prevents mistakes. Multigrade for all season use.
2. Improves fuel economy in diesel engines. Provides faster oil circulation at low temperatures and reduces consumption during start-up.
3. Minimizes lubrication costs by utilizing equipment manufacturer's maximum drain recommendations.
4. Meets New Mack EO-M Plus & Cummins 20076 specification for oil thickening as measured by the Sequence III E Test. These new specifications reduce oil thickening by half of the former limit.
5. Meets Detroit Diesel requirements of API CF-2 and Detroit Diesel 2000 & 4000 category engines.
6. Meets API-CF-4 requirements for improved control of oil consumption and piston deposits as approved by the Caterpillar 1K test.
7. Meets API CK & SL and also meets the requirements of EPA 2002 compliant engines utilizing cooled exhaust gas recirculation.

ADVANTAGES:

- High temperature thermal stability – outstanding resistance to oil thickening.
- Long bearing and valve train life due to excellent anti-wear and anti-corrosion protection.
- Can be safely used at both low and high temperatures because of excellent protection against carbon deposits, low temperature sludge and varnish formation.
- Seal leakage problems are minimized as a result of proven elastomer compatibility with nitrile, silicone and polyacrylate seals.
- Provides additional benefits of enhanced oxidation control and protection of bearings against corrosive attacks.

continued

Meets or exceeds the requirements for all the following specifications.

A.P.I. Service SH, SJ, SL	Volvo VDS
CF/CF2, CF-4, CG-4, CH-4, CI-4, CK	Scania
Chrysler Motors MS-6395D	Iveco
General Motors 6085M	International Harvester
Ford Motors ESN M2C153E	Ford Diesel
MIL-L-46152E	RVI
MIL-L2104F	Man 270, 271
MIL-L45199B (Caterpillar Series 3)	Perkins
Cummins NTC-400, CES 20071	KHD
Mack EO-M Plus	Caterpillar Power Shift Transmission
CCMC Gasoline G1 & G2	Caterpillar TO-2
Daimler-Benz Sheet 227.0, 227.1, 228.1	Detroit Diesel Allison C-3 and C-4
Volkswagen 500.00, 501.00, 505.00	John Deere JDQ-78 Diesel

Typical Physical & Chemical Specifications

Viscosity Index ASTM F-2270	142
Viscosity 40° C, cST	108.9
Viscosity 100° C, cST	14.9
Viscosity 100° F, SUS	559
Viscosity 210° F, SUS	78.6
Viscosity CCS @ -15° C, cp	2700
Pour Point, ° C, (° F)	-32 (-25)
Flash Point, ° C, (° F)	210 (210)
API Gravity @ 60° F	29.1
Weight per gallon	7.34
TBN	10.3
Sulfated Ash, % wt.	1.3
Zinc, % wt.	0.138
ASTM Color	5