# Delo® 600 ADF

# CALTEX

## **Premium Heavy Duty Diesel Engine Oil**

# **Product Description**

**Delo® 600 ADF** with OMNIMAX<sup>TM</sup> is a premium, high performance, long drain, "ultra-low ash", synthetic technology engine oil. It is recommended for Tier IV Final & 2017 greenhouse gas-compliant (GHG 17) diesel engines with lower CO2 emissions and improved fuel economy fitted with selective catalytic reduction (SCR), diesel particulate filter (DPF) and exhaust gas recirculation (EGR) systems as well as in Euro VI and off-highway EU Stage V naturally aspirated and turbocharged four-stroke diesel engines.

#### Customer benefits

### Helps minimize fleet maintenance costs

Formulated with latest generation "ultra-low-ash" technology, it promotes reduced DPF clogging, helping minimize DPF maintenance, equipment downtime and service costs. Exceptional soot dispersancy helps keep fuel soot in suspension, and assists with minimizing filter plugging, cylinder head sludge, abrasive polishing wear and oil thickening.

#### Helps minimize fleet operating costs

Excellent deposit control on valves and piston crownlands helps reduce oil consumption. Exceptional oxidation stability and soot control assist to provide extended oil drain capability so that equipment can be in service longer generating revenue. Helps contribute to maximizing vehicle utilization and minimizing downtime.

#### Designed for improved fuel economy

Low metallic ash formulation helps reduce DPF regeneration and back pressure, contributing to good fuel economy performance. Furthermore, lower viscosity of SAE 10W-30 offers improved fuel economy due to reduced friction at start-up and internal fluid friction during operation.

### Helps reduce inventory costs

Proprietary formulation is designed to provide excellent overall performance in mixed fleets of different engine designs, (including modern low emission diesel engines) allowing one oil for many services and helping to reduce the chance of product misapplication. Backward compatible with previous API Oil Service Categories and engine models.

#### Low temperature protection

Low viscosity synthetic base stock of SAE 10W-30 grade promotes consistent cold engine starting for gasoline and diesel engines operating in low temperatures thus helping to protect against start-up wear.

### • Formulated to help reduce emissions

Low Sulphated-Ash, Phosphorus and Sulphur (SAPS) technology helps maximize the life of sensitive catalyst metals and the cleaning intervals of diesel particulate filters.

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## Application

- Mixed fleets of European, North American and/or Japanese OEMs with diesel engines.
- Commercial road transport, including the modern engines fitted with exhaust cleanup devices of all types.
- Vehicles meeting the most recent exhaust emissions standards, including US EPA 2002, 2007 and 2010, 2017 greenhouse gas (GHG 17) Euro IV, V and VI, Bharat Stage VI and Australian ADR 80/02 and ADR 80/03 (for heavy duty).
- Stop-and-go vehicles in high soot loading service such as buses and waste collection trucks.
- · Most diesel engine light duty vehicles.
- Off-highway vehicles and plants including agricultural equipment and generator sets.
- Many heavy-duty gas-fueled vehicles in which such oils with the qualities of Delo 600 ADF are recommended.

### Product approvals, performance and recommendations

DELO® 600 ADF	10W-30	15W-40
API CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4	Approved	Approved
Cummins CES 20086, CES 20092	Approved	Approved
DTFR 15C100 (previously MB 228.31)	Approved	Approved
Detroit Diesel (Daimler Truck) 93K222	Approved	Approved
Deutz DQC IV-18 LA	Approved	-
Deutz DQC III-18 LA	-	Approved
MAN M3775	Approved	Approved
Mack EOS 4.5	Approved	Approved
Renault Trucks RLD-3	Approved	Approved
Volvo VDS-4.5	Approved	Approved
ZF TE-ML 04C	-	Approved
ACEA E8	Meets Requirements	-
ACEA E11	Meets Requirements	Meets Requirements
Caterpillar ECF-3	-	Meets Requirements
ACEA E8	Meets Requirements	-

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### Service Considerations

"Low SAPS" engine oils tend to have lower Base Numbers than "conventional" heavy duty diesel engine oils. Used in conjunction with today's low, very low or ultra-low sulfur content fuels this is of no consequence. However, in situations where very high sulfur (>0.2%) fuels are in use this may, to some extent, limit achievable drain intervals.

Fuel sulfur levels have declined significantly over the past decade but are still relatively high in some countries. For applications where fuel Sulfur is higher, other products from the Caltex range like Delo 400 MGX SAE 15W-40 are recommended.

While the level of phosphorus is low by heavy duty diesel engine oil standards, it is somewhat higher than permitted by certain recent standards for passenger car motor oils, e.g. ILSAC GF-6, and the ACEA "C" standards. Optimum life of catalytic emission control systems will be achieved by using oils of the performance standard recommended by the vehicle manufacturer.

Consult with OEM representatives for independent verification, updates and recommendations.

# Delo® 600 ADF SAE 15W-40



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# Typical Test Data

DELO <sup>®</sup> 600 ADF	TEST METHOD	RESULTS	
SAE Grade		10W-30	15W-40
Product Code		500795	500860
Base No., mg KOH/g	ASTM D2896	7	7
Sulfur	X-ray/ICP	0.2	0.2
Sulfated Ash, m%	ASTM D874	0.4	0.4
Viscosity,			
mm²/s @ 40°C	ASTM D445	79.1	111.5
mm²/s @ 100°C	ASTM D445	11.9	14.9
Viscosity Index	ASTM D2270	145	136

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ENVIRONMENT, HEALTH, and SAFETY. Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions, and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit the Product Information Center.

This Product Data Sheet (PDS) was produced for the Asia-Pacific region in good faith from the best information available at the time of issue. The specific information included may not directly reflect the local market or conditions. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. For the most up-to-date, country-specific information, please contact your local customer service center.

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