



DELO[®] 400 ZFA ISOCLEAN[®] CERTIFIED LUBRICANT SAE 10W-30 (Synthetic Technology)



PRODUCT DESCRIPTION

"Delo. Let's go further.[®]"

Delo[®] 400 ZFA SAE 10W-30 ISOCLEAN[®] Certified Lubricant with ISOSYN[®] Advanced Technology is a premium synthetic technology fuel economy and mixed fleet engine oil recommended for naturally aspirated and turbocharged four-stroke diesel engines and four-stroke gasoline engines in which the API FA-4, SN or SN PLUS service category and SAE 10W-30 viscosity grade are recommended. Chevron ISOCLEAN Certified Lubricants have been certified to meet specified ISO Cleanliness standards at point of delivery using industry leading filtration and testing technology. ISOCLEAN Certified products are the first step for contamination control and maximizing component life.



CUSTOMER BENEFITS

Delo 400 ZFA SAE 10W-30 (Synthetic Technology) ISOCLEAN Certified Lubricant with ISOSYN Advanced Technology is an API FA-4 heavy duty engine oil specifically formulated for on highway applications, including certain 2017 greenhouse gas (GHG 17) compliant diesel engines with lower CO₂ emissions and improved fuel economy, in addition to certain EPA 2010 compliant low emission diesel engines with Selective Catalytic Reduction (SCR), Diesel Particulate Filter (DPF) and Exhaust Gas Recirculation (EGR) systems calling for SAE 10W-30 heavy duty motor oil.

Delo 400 ZFA SAE 10W-30 ISOCLEAN Certified Lubricant with ISOSYN Advanced Technology is formulated to protect new generation GHG'17 model diesel engines.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

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HDMO-75 ISOCLEAN

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Delo 400 ZFA SAE 10W-30 ISOCLEAN Certified Lubricant delivers value through:

- **Ready to use** — Enables users to meet stringent original equipment manufacturers' cleanliness standards for fill lubricants.
- **Flexibility** — ISO Cleanliness targets can be customized to fit your business application needs.
- **Peace of mind** — Each delivery of Chevron ISOCLEAN Certified Lubricant includes an ISOCLEAN Certificate of Analysis.
- **OE fluid cleanliness requirements** — Customized to meet specific equipment manufacturers' fluid cleanliness requirements.
- **Improved Fuel Economy** — Up to 1.3% improvement vs. SAE 15W-40 oils in Class 8 vehicle diesel engine bench testing programs.
- **Better Low Temperature Pumpability** — Excellent cold flow properties help with rapid oil circulation to minimize wear during cold temperature starting.
- **Exceptional Deposit Control** — Superb oxidation resistance, thermal stability and detergency minimize piston and turbocharger deposits.
- **Minimized Operating Costs** — Exceptional anti-wear, deposit and soot control. Cylinders, pistons, rings and valve train components are well protected against wear and corrosion, providing optimum service life and minimal maintenance. Contributes to maximum vehicle utilization and minimal downtime.
- **Excellent Emission Control System Life** — Provides long Diesel Particulate Filter (DPF) life for minimal downtime and cleaning, thus managing maintenance costs.

- **Managed Inventory Costs** — Suitable for use in four-stroke gasoline and naturally aspirated turbocharged and modern electronically controlled/low emission diesel engines where API FA-4, SN or SN PLUS service category and SAE 10W-30 viscosity grades are required. Allows users with a wide mix of engine brands to enjoy simplified inventory and dispensing systems that may contribute to saving money, space and handling time.
- **Warranty Plus Protection** — Bumper-to-bumper warranty protection from the engine to the drive train. Payment for Chevron lubricant-related damage to your equipment, including parts and labor.¹ Problem resolution and technical advice from Chevron's lubrication experts.
- **Access to Chevron's Lubrication and Industry Knowledge** — Helps maximize your bottom line business results.

FEATURES

Delo® 400 ZFA SAE 10W-30 ISOCLEAN® Certified Lubricant with ISOSYN® Advanced Technology is formulated using advanced additive technology to provide outstanding protection and improved fuel economy for on-highway diesel engine applications that allow the use of an API FA-4 SAE 10W-30.

Delo 400 ZFA SAE 10W-30 ISOCLEAN Certified Lubricant is formulated with ISOSYN Advanced Technology, which is the combination of Chevron's industry-leading formulating expertise with unique, high performance additive chemistry to help extend the durability of critical engine parts.

ISOSYN ADVANCED TECHNOLOGY

ISOSYN Advanced Technology is the combination of Chevron's outstanding formulating expertise, unique high performance additive chemistry and premium base oils that helps extend the durability of critical diesel engine parts.



Delo 400 products formulated with ISOSYN Advanced Technology can provide improved engine longevity, extended oil drain performance, and excellent diesel component parts protection, helping to extend vehicle life and minimize total cost of ownership when compared with previous generation Chevron HDMO formulations.

ISOSYN Advanced Technology benefits customers by helping to provide:

- Up to 35% improved oil oxidation control*
- Up to 68% improved wear protection*
- Up to 64% improved piston deposit control*

*Results will vary based on the Delo 400 product, operating conditions, and engine types. Always follow OEM recommendations and utilize used oil analysis testing when extending oil drain intervals.

FUNCTIONS

Delo 400 ZFA SAE 10W-30 ISOCLEAN Certified Lubricant with ISOSYN Advanced Technology helps to keep rings clean and free for maximum combustion pressure and minimal wear. It minimizes valve and piston crown land deposits, thus managing oil consumption. Its high level of ashless dispersants keeps fuel soot in suspension and thus helps to avoid filter plugging, heavy cylinder head sludge, abrasive polishing wear, high viscosity increase, and oil gelling. These problems can result in excessive engine wear and bearing failure on startup, without prior indication to the operator.

Specially selected oxidation inhibitors control oxidation, sludge, and undue thickening. Its unique blend of extreme pressure anti-wear additives protect against valve train wear and scuffing of highly loaded parts operating under boundary lubrication. A specially selected viscosity index improver ensures easy flow at low temperatures and excellent film protection in hot engine areas. A defoaming additive protects against air entrainment.

The combination of premium dispersant additives and ISOSYN Advanced Technology allows Delo 400 ZFA SAE 10W-30 ISOCLEAN Certified Lubricant to effectively disperse soot and keep it in suspension. This minimizes the risk of valve train wear and filter plugging.

¹ See Warranty Plus for details and restrictions.

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APPLICATIONS

Delo® 400 ZFA SAE 10W-30 ISOCLEAN® Certified Lubricant with ISOSYN® Advanced Technology is a fuel economy and mixed fleet engine oil recommended for naturally aspirated and turbocharged four-stroke diesel engines and four-stroke gasoline engines in which the API FA-4, SN or SN PLUS service categories and SAE 10W-30 viscosity grade are recommended. It is formulated for engines operating under severe service and in a wide range of climatic conditions.

Delo 400 ZFA SAE 10W-30 ISOCLEAN Certified Lubricant with ISOSYN Advanced Technology is formulated for exceptional performance with ultra low sulfur diesel (ULSD) and other low sulfur diesel fuels.

Delo 400 ZFA SAE 10W-30 ISOCLEAN Certified Lubricant is approved for:

- **API Service Categories** FA-4, SN, SN PLUS
- **Cummins** CES 20087
- **Daimler MB-Approval** 228.61
- **Detroit Fluids Specification (DFS)** 93K223

Delo 400 ZFA SAE 10W-30 ISOCLEAN Certified Lubricant is recommended for:

- **Ford F150** diesel engines where Ford WSS-M2C214-B1 or API FA-4 SAE 10W-30 is specified

It is also recommended for today's most modern on-highway low emission designs, as well as some previous generation model diesel engines (Detroit Diesel DD15/DD13 EPA 13 and EPA 10 model diesel engines) that are authorized to use API FA-4 SAE 10W-30 engine oils.

Consult with your Chevron Lubricant Representative or Chevron ISOCLEAN Certified Lubricants Marketer to set specific ISO Cleanliness targets for your business application.

TYPICAL TEST DATA

SAE Grade	10W-30
Product Number	278086
SDS Number	
U.S.	42683
Canada	43553
Mexico	43554
Density at 15°C, kg/L	0.867
Viscosity, Kinematic	
mm ² /s at 40°C	65
mm ² /s at 100°C	9.8
Viscosity, Cold Crank, °C/mPa.s	-25/5100
Viscosity, MRV, °C/mPa.s	-30/15,400
Viscosity Index	135
Flash Point, °C(°F)	232(450)
Pour Point, °C(°F)	-48(-54)
Sulfated Ash, mass %	1.0
Base Number, mgKOH/g, ASTM D2896	10
Phosphorus, mass %	0.076
Sulfur, mass %	0.28
Zinc, mass %	0.083

Minor variations in product typical test data are to be expected in normal manufacturing.

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