



# DELO<sup>®</sup> 400 XSP

## SAE 5W-40 (Synthetic)



### PRODUCT DESCRIPTION

“Delo. Let’s go further.<sup>®</sup>”

Delo<sup>®</sup> 400 XSP SAE 5W-40 (Synthetic) with ISOSYN<sup>®</sup> Advanced Technology is a mixed-fleet engine oil recommended for naturally aspirated and turbocharged four-stroke diesel engines and four-stroke gasoline engines in which the API CK-4, API SN or API SN PLUS service categories and SAE 5W-40 viscosity grade is recommended.

### CUSTOMER BENEFITS

Delo 400 XSP SAE 5W-40 with ISOSYN Advanced Technology is an API CK-4 heavy duty engine oil specifically formulated for on-highway and off-highway applications including 2017 greenhouse gas (GHG 17) compliant diesel engines with lower CO<sub>2</sub> emissions and improved fuel economy, in addition to EPA 2010 compliant low emission diesel engines with Selective Catalytic Reduction (SCR), Diesel Particulate Filter (DPF) and Exhaust Gas Recirculation (EGR) systems. It is fully compatible with previous engine models and previous API Oil Service Categories. It delivers value through:

- **Low Viscosity Synthetic Base Stock** — Promotes consistent cold engine starting for gasoline and diesel engines operating in sub-zero temperatures.
- **Minimized Operating Costs** — Exceptional soot dispersancy and wear control protect the cylinders, pistons, rings, and valve train components against wear and corrosion, promoting optimum service life and minimal maintenance. Contributes to maximum vehicle utilization and minimal downtime.
- **Excellent Emission Control System Life** — Promotes optimum Diesel Particulate Filter (DPF) life

for minimal downtime and cleaning, thus minimizing maintenance costs.

- **Managed Inventory Costs** — Is compatible with previous API Oil Service Categories. Suitable for use in gasoline engines and naturally aspirated or turbocharged electronically controlled/low emission diesel engines. One oil that meets the engine performance requirements of most North American and European engine manufacturers. One oil that allows users with a wide mix of engine brands to enjoy simplified inventory and dispensing systems that help save 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.<sup>1</sup> 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 XSP SAE 5W-40 is formulated with ISOSYN



Advanced Technology, which is a combination of premium base oils and high performance additives with Chevron’s formulating expertise that provides superb diesel engine parts protection - all at an outstanding value.

Delo 400 XSP SAE 5W-40 with ISOSYN Advanced Technology meets the most stringent EGR soot control requirements.

Delo 400 XSP SAE 5W-40 with ISOSYN Advanced Technology has been specifically designed to meet the

<sup>1</sup> See Warranty Plus for details and restrictions.

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

21 May 2018  
HDMO-49

© 2017-2018 Chevron U.S.A. Inc. All rights reserved.

Chevron, the Chevron Hallmark, Delo and Delo. Let’s go further. are trademarks owned by Chevron Intellectual Property LLC. All other trademarks are property of their respective owners.

demands of EGR and EGR/SCR engines while at the same time providing the highest level of performance in older diesel engines.

## 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 69% 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 XSP SAE 5W-40 with ISOSYN Advanced Technology helps keep piston rings clean and free for optimum combustion pressure and minimal wear. Delo 400 XSP SAE 5W-40 with ISOSYN Advanced Technology minimizes valve and piston crown land deposits, thereby managing oil consumption. Its high level of ashless dispersants keeps fuel soot in suspension and helps to avoid filter plugging, cylinder head sludge, abrasive wear, viscosity increases, and oil gelation. These problems could cause excessive engine wear and bearing failure, without prior warning.

Optimized additive chemistries combined with synthetic base stocks control oxidation, sludge, and undue thickening between oil drains. Delo 400 XSP SAE 5W-40's antiwear technologies protect against valve train wear and scuffing of highly loaded parts operating under boundary lubrication. A defoaming additive helps prevent air entrapment.

## APPLICATIONS

Delo 400 XSP SAE 5W-40 with ISOSYN Advanced Technology is a mixed-fleet motor oil recommended for naturally aspirated and turbocharged four-stroke diesel engines and four-stroke gasoline engines in which the API CK-4, API SN or API SN PLUS service categories and SAE 5W-40 viscosity grade is recommended. It is formulated for engines operating under severe service and a wide range of climatic conditions.

Delo 400 XSP SAE 5W-40 with ISOSYN Advanced Technology is excellent for use in engines developed to meet 2010 emissions standards and in engines equipped with features like four-valve heads, supercharging, turbocharging, direct injection, shorter piston crowns, higher power density, intercooling, full electronic management of fuel and emissions systems, exhaust gas recirculation, and exhaust particulate filters.

This product is recommended for use in older engines, as well as in today's most modern low emission designs.

### Delo 400 XSP SAE 5W-40 is approved for:

- **API Service Categories** CK-4, CJ-4, CI-4, CI-4 PLUS, SN
- **Allison** TES-439, heavy-duty automatic transmissions
- **Cummins** CES 20086
- **DEUTZ** DQC III-10 LA
- **Detroit Fluids Specification (DFS)** 93K222
- **Mack** EOS 4.5
- **Volvo** VDS-4.5

### Delo 400 XSP SAE 5W-40 is recommended for:

- **ACEA European Service Category** E9
- **API Service Category** SN PLUS
- **Caterpillar** ECF-3
- **Daimler MB-Approval** 228.31
- **JASO** DH-2
- **MAN** M 3575
- **MTU** Category 2.1

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.

## TYPICAL TEST DATA

<b>SAE Grade</b>	<b>5W-40</b>
<i>Product Number</i>	257002
<i>SDS Number</i>	
<i>U.S.</i>	45599
<i>Canada</i>	455600
<i>Mexico</i>	455601
Density at 15°C, kg/L	0.852
Viscosity, Kinematic	
mm <sup>2</sup> /s at 40°C	96.0
mm <sup>2</sup> /s at 100°C	15.4
Viscosity, Cold Crank, °C/mPa.s	-30/6311
Viscosity Index	170
Viscosity, MRV, mPa.s at -35°C	29081
Viscosity, HTHS, mPa.s	4.2
Flash Point, °C(°F)	223(433)
Pour Point, °C(°F)	-46(-51)
Sulfated Ash, mass %	1.0
Base Number, ASTM D2896, mg KOH/g	10.1
Phosphorus, mass %	0.08
Zinc, mass %	0.08

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

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.

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.

21 May 2018  
HDMO-49