DELO® 400 SDE ISOCLEAN® CERTIFIED LUBRICANT
SAE 15W-40

PRODUCT DESCRIPTION

"Delo. Let’s go further.®"

Delo® 400 SDE SAE 15W-40 ISOCLEAN® Certified Lubricant with
ISOSYN® Advanced Technology is a heavy duty engine
oil recommended for naturally aspirated and
turbocharged four-stroke diesel engines and four-
stroke gasoline engines in which the API CK-4 or SN
service category and SAE 15W-40 viscosity grade are
recommended. Delo 400 SDE 15W-40 ISOCLEAN
Certified Lubricant is also backwards compatible with
diesel engines in which the API CJ-4, CI-4, CI-4 Plus
and CH-4 service categories 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 SDE SAE 15W-40 ISOCLEAN Certified
Lubricant with ISOSYN Advanced Technology is an API
CK-4 heavy duty engine oil specifically formulated for
2017 greenhouse gas (GHG 17) compliant diesel engines designed to meet lower CO₂ 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:

- 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.
- Minimized Operating Costs — Exceptional soot
  dispersancy and wear 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 optimum Diesel Particulate Filter (DPF) life
  for minimal downtime and cleaning, thus managing
  your maintenance costs.
- Managed Inventory Costs — Backward
  compatible with previous API Oil Service Categories
  and engine models. Suitable for use in four-stroke
gasoline and naturally aspirated, turbocharged and
modern electronically controlled/low emission diesel
engines calling for an SAE 15W-40 heavy duty motor
oil. 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
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.

Labor. 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 SDE SAE 15W-40 ISOCLEAN Certified Lubricant with ISOSYN Advanced Technology is a super premium quality conventional engine oil which exceeds industry and engine manufacturers' performance requirements. It is the most recommended OEM viscosity grade for over-the-road and off-highway diesel engines.

It is formulated using the most advanced additive technology to provide outstanding protection for on- and off-highway applications, including GHG 17 and EPA 2010 compliant engines of on-highway diesel trucks burning Ultra Low Sulfur Diesel (ULSD), as well as 2014 compliant engines for off-highway vehicle diesel engines.

Today, Delo® 400 SDE SAE 15W-40 ISOCLEAN® Certified Lubricant with ISOSYN® Advanced Technology meets the most stringent EGR soot control requirements.

Delo 400 SDE SAE 15W-40 ISOCLEAN Certified Lubricant with ISOSYN Advanced Technology has been specifically designed to meet the demands of EGR and SCR engines. It is formulated to comply with passenger car requirements where API SN performance standard and SAE 15W-40 viscosity grade are acceptable, and when maximum 800 ppm phosphorous is specified.

Delo 400 SDE SAE 15W-40 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 your critical diesel 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 particular 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 SDE SAE 15W-40 ISOCLEAN Certified Lubricant with ISOSYN Advanced Technology helps keep rings clean and free for maximum combustion pressure and minimal wear. Delo 400 SDE SAE 15W-40 ISOCLEAN Certified Lubricant minimizes valve and piston crown land deposits, thereby maintaining minimal oil consumption. Its high level of ashless dispersants keep fuel soot in suspension and help 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 during oil drain periods. Delo 400 SDE SAE 15W-40 ISOCLEAN Certified Lubricant’s unique antiwear additive protects 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.

The combination of premium dispersant additives and ISOSYN Advanced Technology allows Delo 400 SDE SAE 15W-40 ISOCLEAN Certified Lubricant to effectively disperse soot and keep it in suspension. This minimizes the risk of valve train wear, lever polishing, and filter plugging.

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1 See Warranty Plus for details and restrictions.
Applications

Delo® 400 SDE SAE 15W-40 ISOCLEAN Certified Lubricant 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 or SN service category and SAE 15W-40 viscosity grade are recommended. It is formulated for engines operating under severe service and a wide range of climatic conditions.

Delo® 400 SDE SAE 15W-40 ISOCLEAN Certified Lubricant with ISOSYN Advanced Technology is excellent for use in new advanced engines developed to meet the latest emissions and reliability standards and in engines equipped with features like four-valve heads, super-charging, turbo-charging, direct injection, shorter piston crowns, higher power density, intercooling, full electronic management of fuel and emissions systems, exhaust selective catalytic reduction, exhaust gas recirculation, and exhaust particulate filters.

It is formulated for exceptional performance with ultra low sulfur diesel and low sulfur diesel fuels.

This product is recommended for use in today’s most modern off-highway engines including those adapted for current emissions standards in construction, agriculture, mining, and marine applications.

**Delo® 400 SDE SAE 15W-40 ISOCLEAN Certified Lubricant is approved for:**

- **API Service Categories** CK-4, CJ-4, CI-4 PLUS, CI-4, CH-4, SN
- **Cummins** CES 20086
- **Daimler MB-Approval** 228.31
- **Detroit Fluids Specification** (DFS) 93K222
- **DEUTZ DQC III-10 LA**
- **Mack** EOS 4.5
- **MTU** Category 2.1
- **Renault** RLD-4
- **Volvo** VDS-4.5

**Delo® 400 SDE SAE 15W-40 ISOCLEAN Certified Lubricant meets the requirements for:**

- **ACEA** E9
- **Caterpillar** ECF-3
- **MAN** M3575
- **JASO** DH-2

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**

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<th>SAE Grade</th>
<th>15W-40</th>
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<td>Canada</td>
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<td>Colombia</td>
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<td>El Salvador</td>
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<tr>
<td>Density at 15°C, kg/L</td>
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<tr>
<td>Viscosity, Kinematic mm²/s at 40°C</td>
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<tr>
<td>mm²/s at 100°C</td>
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<tr>
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<td>Viscosity, HTHS, mPa.s</td>
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<tr>
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<td>Sulfur, mass %</td>
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<tr>
<td>Zinc, mass %</td>
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</table>

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.
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