



DURON™ 15W-40 HEAVY DUTY ENGINE OIL

Introduction

DURON 15W-40 is a premium multigrade heavy duty engine oil recommended for engines fueled by diesel, gasoline, propane, or compressed natural gas (CNG), operating on-highway or off-highway in transportation, mining, forestry, construction, farm and marine applications.

DURON 15W-40 has advanced soot controlling performance and thermal stability required by low emission engine designs up to the 2007 model year, with features such as advanced combustion chamber design, sophisticated fuel injection management, cooled exhaust gas recirculation and exhaust gas aftertreatment.

DURON 15W-40 is formulated from one of the purest base oils in the world; the result of a patented HT purity process to produce 99.9% pure base oils. That purity helps maximize the effectiveness of the oil's soot controlling chemistry and high performance additive system. Extensive testing, including laboratory bench tests and fleet field trials, clearly prove the outstanding benefits of DURON multigrade engine oils for both cooled EGR engines and non-EGR engines.

Features and Benefits

Exceeds CI-4+ industry requirements for severely turbocharged, delayed injection and cooled EGR designs.

- **Advanced soot control**
 - Helps prevent soot agglomeration, which:
 - Minimizes soot related engine wear
 - Minimizes soot related viscosity increase, resulting in better maintenance of fuel economy and cold temperature performance and protection
 - Helps reduce filter plugging and better oil flow
- **Highly shear stable, it maintains viscosity grade and retains new oil properties during extended drain intervals**
 - Excellent resistance to viscosity loss
 - Stable oil pressure
- **Easier, faster cold weather start-ups and pumpability for superior protection in all-weather conditions**
 - Excellent low temperature flow properties
 - Less wear on start-up
- **Minimize down time and reduced operating and maintenance costs**
 - Exceptional engine wear protection
 - Reduced filter plugging

What is the HT difference?

Petro-Canada starts with the patented HT purity process to produce crystal-clear, 99.9% pure base oils. The result is a range of lubricants, specialty fluids and greases that deliver maximum performance for our customers.



Approvals and Recommendations

- Approved
□ Suitable For Use

Approvals	DURON 15W-40
ACEA	
ACEA E7 - 08	□
ACEA E7 - 04	□
API	
API CI-4 PLUS	■
API CI-4	■
API CH-4	■
API SL	■
Caterpillar	
Caterpillar TO-2	□
Caterpillar TO-2 / Allison C4	□
Caterpillar ECF-1-a	□
Caterpillar ECF-2	□
Caterpillar SEBU 6385	□
Cummins	
Cummins CES 20076	□
Cummins CES 20077	□
Cummins CES 20078	■
Detroit Diesel	
Detroit Diesel Power Guard 93K214	□
Detroit Diesel Power Guard 93K215	■
Detroit Diesel, 7SE270 2-Stroke Cycle*	□
Detroit Diesel, 7SE273 (Series 2000/4000)	□
Ford	
Ford M2C171-C	□
Ford M2C171-D	□
Mack	
Mack EO-M / EO-M Plus	□
Mack EO-N PP	□
Mack EO-N PP '03	■
Volvo	
Volvo VDS-2	□
Volvo VDS-3	■
Other	
GLOBAL DHD-1	□
JASO DH-1	□
MAN 3275	□
MB 228.1	□
MB 228.3	□
MTU Type 2	■
Renault VI RLD-2	□
Scania LDF, LDF-2	□

* Detroit Diesel recommends an SAE 40 grade only for 2-stroke cycle engines, except where starting aids are not available or at very cold temperatures, when the use of an SAE 15W-40 or SAE 30 will facilitate starting.

Applications

Car and Light Truck Diesel Engines

DURON 15W-40 is also suitable for use in diesel powered engines in smaller vehicles, including cars and light trucks where this viscosity grade and API CI-4 Plus, CI-4, CH-4, CF, ACEA A3/B3, A3/B4 or earlier specifications are required. Consult your owners manual.

Stationary Diesel Power Generation & Marine

DURON 15W-40 may be used in stationary power generation & marine service where an SAE 15W-40 diesel engine oil is specified and water separation is not needed.

Gasoline Engines

DURON 15W-40 may be used in gasoline engines requiring API SL, ACEA A3/B3, A3/B4 or an earlier specification. Consult your owner's manual.

Transmissions and Hydraulics

- Caterpillar powershift transmissions, semi-automatic transmissions and torque converters where a TO-2 fluid is specified
- Allison transmissions and torque converters where a C-4 fluid is specified and where higher temperature performance is required
- ZF transmissions where TE-ML07 is specified
- Clark powershift transmissions
- Wet clutch transmissions, including motorcycles and all terrain vehicles (meets friction requirements of JASO MA)

TYPICAL PERFORMANCE DATA

PROPERTY	ASTM TEST METHOD	DURON 15W-40
Flash Point, °C / °F	D92	235
Kinematic Viscosity cSt @ 40°C / SUS @ 100°F cSt @ 100°C / SUS @ 210°F	D445 D445	114 / 584 15.5 / 81.0
Viscosity Index	D2270	144
High Temp/High Shear Viscosity cP @ 150°C	D4683	4.4
Cold Cranking Viscosity, cP @ °C/°F	D5293	5200 (-20 / -4)
Borderline Pumping Viscosity cP @ °C/°F	D4684	15350 (-25 / -13)
Sulphated Ash, % wt	D874	1.37
Total Base No. (TBN), mg KOH/g	D2896	9.6

The values quoted above are typical of normal production. They do not constitute a specification.

Health and Safety

DURON 15W-40 engine oil has no adverse effect on health provided they are used as directed. To obtain Material Health and Safety Data Sheets, contact one of Petro-Canada's TechData Info Lines.

TechData Info Lines

If you would like to know more about DURON, or any other product in our complete line of quality lubricants, please contact us at:

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Beyond today's standards.

