

## DURON™ NEXT GENERATION HEAVY DUTY DIESEL ENGINE OILS

### Introduction

Petro-Canada's DURON™ next generation line of premium performance multigrade diesel engine oils delivers industry leading protection against increased wear which can lead to lower productivity and impaired fuel economy. They're formulated to exceed API CK-4 requirements and are suitable for use in the latest 2015 EPA compliant low emission engines which employ advanced exhaust after treatment devices such as Diesel Particulate Filters (DPF) with or without Diesel Oxidation Catalysts (DOC), increased rates of Exhaust Gas Recirculation (EGR) and Selective Catalytic Reduction (SCR). DURON heavy duty engine oils are suitable for use in engines powered by both ultra low and low sulphur diesel fuel. DURON next generation is back serviceable and carries the API service CJ-4, CI-4 Plus, CI-4, and CH-4 licenses required by pre-'10 diesel engines.

DURON next generation is formulated from one of the purest base oils in the world; the result of our HT purity process to produce 99.9% pure base oils. DURON next generation is formulated to the highest API diesel and gasoline performance standards for 4-Stroke engine oils and is suitable for use in extended oil drain service. Extending drain intervals should always be undertaken with good operating practices and maintenance programs including an oil analysis program. Contact your Petro-Canada technical representative for additional information and assistance.



### Features and Benefits

DURON next generation heavy duty diesel engine oils offer a number of premium performance features which include:

- **Ultimate wear protection**
  - Superior engine protection
  - Maximizes uptime and helps lower maintenance costs
  - Extends drain intervals
- **Maintains shear stability**
  - High oil film strength for high temperature protection
  - Exceptional after shear viscosity retention helps protect your engine
- **Reduced oxidative thickening**
  - Extends drain intervals
  - Maintains low temperature performance
- **Reduced valve train wear**
  - Maintains optimal engine output
- **Reduced piston deposits**
  - Excellent engine protection and cleanliness
  - Helps maintain engine power and fuel efficiency
- **Corrosion protection**
  - Helps reduce engine corrosion, particularly in idling equipment
- **Reduced oil consumption**
  - Reduces the need for top-up oil
- **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
- **Emission system friendly**
  - Low ash formula helps prevent premature DPF plugging and shortened maintenance intervals

### What is the HT difference?

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



## Product Line

DURON Next Generation heavy duty diesel engine oils listed here are formulated to exceed API CK-4 requirements, unless otherwise noted in the product information. For a full list of Approvals and Recommendations, please see the chart on the following page.

### **DURON HP 15W-40**

DURON HP 15W-40 is a high performance heavy duty engine oil that delivers all weather engine protection including dependable cold start up and exceptional shear stability. It can deliver extended drain capabilities (exceeding OEM standard intervals)†.

### **DURON SHP 15W-40**

DURON SHP 15W-40 is a Super High Performance synthetic blend heavy duty engine oil that delivers exceptional performance. Outstanding shear stability combined with superior wear protection helps deliver comprehensive protection to vital engine parts over a wide range of operating conditions. DURON SHP 15W-40 is designed to handle more demanding operations, as well as extending drains.

### **DURON SHP 10W-30**

DURON SHP 10W-30 is a Super High Performance synthetic blend heavy duty engine oil that delivers advanced engine protection and all-weather performance. It provides optimal engine durability and can deliver up to 1%\* fuel economy improvements. DURON SHP 10W-30 keeps its fresh oil properties longer allowing for extended drains (versus OEM standard intervals)† and reduced need for top-up oil.

### **DURON UHP 10W-40**

DURON UHP 10W-40 is an Ultra High Performance synthetic all-weather heavy duty diesel engine oil. It is formulated to provide exceptional protection against engine wear and extended drain performance (exceeding OEM standard intervals)† even in the harshest operating conditions and maximum allowable load conditions. It combines superior pumpability and shear stability with excellent engine wear control. DURON UHP 10W-40 can potentially help improve fuel economy through ease of start-up, lower viscous drag and avoidance of the need for idling.

### **DURON UHP 5W-30**

DURON UHP 5W-30 is an API CJ-4/SN Ultra High Performance full synthetic heavy duty diesel engine oil specially formulated with synthetic base oils and high performance additives to deliver up to 2x\*\* better engine protection and up to 4%\*\*\* fuel economy improvements. DURON UHP 5W-30 is specifically designed to maintain its fresh oil properties longer, allowing it to provide the maximum amount of protection in both standard and extended drain intervals†.

### **DURON UHP 0W-40**

DURON UHP 0W-40 is an Ultra High Performance heavy duty engine oil specially formulated with a high performance additive system in combination with high quality synthetic base oils. DURON UHP 0W-40 may be used in extended oil drain interval service in extreme cold climates†.

### **DURON UHP 0W-30**

DURON UHP 0W-30 is formulated with extreme cold service in mind. It is an Ultra High Performance heavy duty engine oils with top performance additives and high quality synthetic base oils that can help users extend oil drain intervals†.

### **DURON UHP 5W-40**

DURON UHP 5W-40 is an Ultra High Performance full synthetic heavy duty engine oil that provides excellent protection and performance, especially in low temperature environments. It helps conserve energy and reduces engine wear through ease of cold weather start-up and lower viscous drag.

† Extending drain intervals should always be undertaken in conjunction with an oil analysis program.


















\* Comparing an SAE 15W-40 with 4.1cP HTHS vs a 10W-30 with 3.5cP HTHS.

\*\* Based on results from the Daimler OM 646 LA industry recognized test.

\*\*\* Fuel economy results are based on the generally accepted and industry recognized SAE J1321 Type II fuel consumption test. Comparison of fuel economy is relative to DURON-E 15W-40 (CJ-4), and in combination with TRAXON™ Synthetic 75W-90 (relative to TRAXON 85W-140) gear oil. Actual results are dependent on external factors including, but not limited to: driving terrain, weather conditions, tire pressure and severity of operating conditions.

## Approvals and Recommendations

★ Approved    ● Suitable For Use    ✓ Meets Specifications

PRODUCTS	DURON HP 15W-40	DURON SHP 15W-40	DURON SHP 10W-30	DURON UHP 10W-40	DURON UHP 5W-30	DURON UHP 5W-40	DURON UHP 0W-40	DURON UHP 0W-30
	✓ E7, E9	✓ E7, E9	✓ E7, E9	✓ E7, E9	✓ E6, E7, E9			
	★ CK-4 / SN	★ CK-4 / SN	★ CK-4 / SN*	★ CK-4 / SN	★ CK-4 / SN	★ CK-4 / SN	★ CK-4 / SN	★ CK-4 / SN
	✓ ECF-3, TO-2	✓ ECF-3, TO-2	✓ ECF-3, TO-2	✓ ECF-3, TO-2	✓ ECF-3	✓ ECF-3, TO-2	✓ ECF-3, TO-2	✓ ECF-3, TO-2
	★ CES 20086	★ CES 20086	★ CES 20086	★ CES 20086	★ CES 20081	★ CES 20086	★ CES 20086	★ CES 20086
	● Standard Drain	● Standard Drain	● Standard Drain	● Standard Drain	✓ Standard and Extended Drain			
	★ DFS 93K222	★ DFS 93K222	★ DFS 93K222	★ DFS 93K222	★ DFS 93K218	★ DFS 93K222		
				★ DQC III-10 LA**	★ DQC IV-10 LA			
	★ WSS-M2C171-F1	★ WSS-M2C171-F1	★ WSS-M2C171-F1	★ WSS-M2C171-F1	★ WSS-M2C171-F1	★ WSS-M2C171-F1		
	● 9985930	● 9985930	● 9985930	● 9985930				
	● MA, MA2	● MA, MA2, DH-1	● MA, MA2, DH-1	● MA, MA2, DH-1	● DH-1	● MA, MA2	● MA, MA2	● MA, MA2
	★ EOS-4.5	★ EOS-4.5	★ EOS-4.5	★ EOS-4.5	★ EOS-0 PP '07	★ EOS-4.5		
	● 3575, 3275-1	● 3575, 3275-1			★ 3477			
	★ 228.31	★ 228.31	★ 228.31		★ 228.51			
	★ Type 2.1	★ Type 2.1			★ Type 3.1			
	★ RLD-4	★ RLD-4	★ RLD-4	★ RLD-4	★ RLD-3	★ RLD-4		
					● LA**			
	★ VDS-4.5	★ VDS-4.5	★ VDS-4.5	★ VDS-4.5	★ VDS-4	★ VDS-4.5		★ VDS-4.5

\* Use of a diesel engine oil for gasoline applications may compromise the life of the emissions device. Please refer to the owner's manual to ensure proper oil is used.  
 \*\* Approval pending with proven technology

## Applications

### Car and Light Duty Diesel Engines

DURON engine oils are also suitable for use in diesel powered engines in smaller vehicles, including passenger cars and light trucks where API CK-4, CJ-4, CI-4 Plus, CI-4, CH-4 or earlier specifications are required. Consult your owner's manual.

### Gasoline and CNG Engines

Many of the DURON Next Generation products exceed the latest API SN gasoline engine oil specification and are suitable for some gasoline and CNG applications where API SN or earlier specifications are required. Many are also suitable for use in wet clutch applications where JASO MA or MA2 is recommended. Please reference the Approvals and Recommendations list on the previous page to ensure you are using the correct product for your application.

### Stationary & Marine type Diesel Engines

DURON HP and SHP 15W-40's may be used in diesel-fuelled stationary and marine systems where an SAE 15W-40 diesel engine oil is specified and water separation is not required.

## Typical Performance Data

PROPERTY	ASTM TEST METHOD	DURON HP 15W-40	DURON SHP 15W-40	DURON SHP 10W-30	DURON UHP 10W-40	DURON UHP 5W-30	DURON UHP 5W-40	DURON UHP 0W-40	DURON UHP 0W-30
Flash Point, COC, °C / °F	D92	228/442	226/439	220/428	229/444	231/448	235/450	224/435	220/428
Kinematic Viscosity cSt @ 40°C cSt @ 100°C	D445	118 15.6	114 15.4	80.1 12.0	107 15.5	67.3 11.4	95.1 14.3	82 14.5	65.2 11.5
Viscosity Index	D2270	139	142	145	157	165	169	180	173
High Temp/High Shear Viscosity cP @ 150°C	D4683	4.1	4.1	3.5	4.1	3.5	3.8	3.9	3.4
Cold Cranking Viscosity, cP @ °C	D5293	5540 (-20 / -4)	5000 (-20 / -4)	5570 (-25 / -13)	5930 (-25 / -13)	5875 (-30 / -22)	5900 (-30 / -22)	5900 (-35 / -31)	5400 (-35 / -31)
Pour Point, °C / °F	D5950	-36 / -33	-36 / -33	-42 / -44	-42 / -44	-45 / -49	-45 / -49	-45 / -49	-45 / -49
Borderline Pumping Viscosity cP @ °C/°F	D4684	21350 (-25 / -13)	19880 (-25 / -13)	18160 (-30 / -22)	27450 (-30 / -22)	16000 (-35 / -31)	30370 (-35 / -31)	28300 (-40 / -40)	19600 (-40 / -40)
Sulphated Ash, % wt	D874	1.0	1.0	1.0	1.0	< 1.0	< 1.0	1.0	1.0
Base No. (BN), mg KOH/g	D2896	9.8	9.8	10.0	10.0	9.6	11.0	9.5	9.7

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

To order product or to learn more about how Petro-Canada Lubricants can help your business visit: [lubricants.petro-canada.com](http://lubricants.petro-canada.com) or contact us at: [lubecsr@petrocanadalsp.com](mailto:lubecsr@petrocanadalsp.com)



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