



SPECIALTY PRODUCTS

# PURITY™ Base Oils

The clear choice from start to finish.

**PURITY Base Oils** are produced using the **HT Purity Process**, which employs severe Hydrotreating/Hydrocracking with either chill or catalytic de-waxing followed by catalytic Hydrofinishing. This process converts undesirable aromatic compounds into desirable paraffinic and cycloparaffinic hydrocarbons. In addition, it eliminates deleterious sulfur, nitrogen and oxygen compounds. The resulting Group II and Group II+ base oils are recommended for blending and compounding in a wide range of automotive, industrial and specialty lubricants. The use of PURITY base oils in formulations can minimize the amount of synthetic basestocks needed to achieve synthetic blend performance.

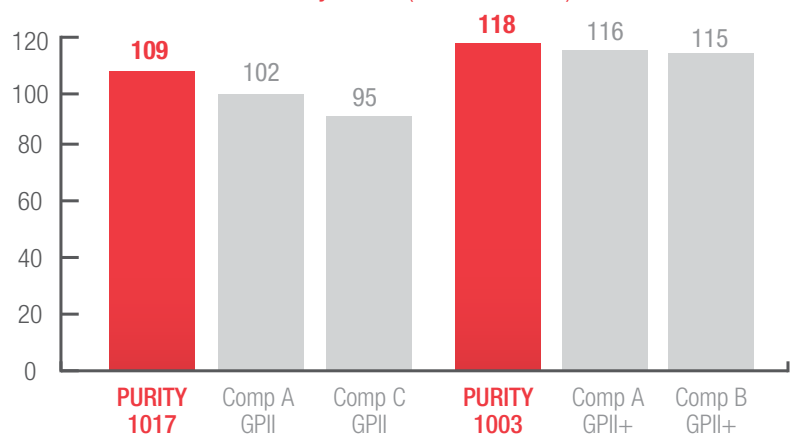
## FEATURES

- High purity
- High viscosity index
- Low volatility
- Excellent low temperature properties
- Excellent oxidative and thermal stability

## BENEFITS

- Very capable of meeting current conventional specifications
- Good response to additives
- Group II+ excels as an adjustment stock to optimize cost and performance

## Viscosity Index (ASTM D2270)



Benchmarking Results

High VI oils are preferred for service in which a constant viscosity is desired under conditions of varying temperature. Viscosity stability contributes to greater fuel efficiency in motor oils and reduced power consumption in industrial lubricants.



# Clear Advantage

## RELIABLE SUPPLY AND WORLD CLASS SUPPORT

- Over 30 years of experience producing base oils that are among the purest in the world
- Consistent and reliable quality
- Strategically located to deliver bulk shipments by rail, truck and marine globally to meet your needs
- ISO 9001, ISO/TS 16949 registered quality management systems
- ISO 14001 registered environmental management system
- World class R&D and a dedicated team that knows your business
- A full range of PURITY base oils available in a variety of grades to meet customer requests

## TYPICAL PROPERTIES OF PURITY BASE OILS

PROPERTY	ASTM TEST METHOD	PRODUCT NAME					
		L35	L40	L45	L50	L60	L65
Density @ 15°C, kg/L	D4052	0.82	0.85	0.85	0.85	0.85	0.83
Colour, ASTM	D1500	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<b>VISCOSITY</b>							
@ 40°C, cSt	D445	3.7	3.4	6.3	5.2	10.2	9.5
@ 100°C, cSt	D445	1.4	1.3	1.9	1.7	2.4	2.6
SUS @ 100°F	D2161	39	38	47	44	61	59
Viscosity Index	D2270	-	-	-	-	87	92
Pour Point, °C (°F)	D5950	-57 (-71)	-33 (-27)	-24 (-11)	-6 (21)	-27 (-17)	-30 (-22)
Flash Point, PM, °C (°F)	D93	125 (257)	124 (255)	125 (257)	147 (297)	159 (318)	175 (347)
Flash Point, COC, °C (°F)	D92	135 (275)	126 (259)	130 (266)	151 (304)	171 (340)	177 (351)
% Saturates	PCM435	99.9	97.8	-	98.5	-	99.9
% Aromatics	PCM435	<0.1	2.2	-	1.5	-	0.1
Sulfur, ppm	D5453	-	-	-	-	-	<1

PROPERTY	ASTM TEST METHOD	PRODUCT NAME				
		1003	1017	1020	2204	2305
Density @ 15°C, kg/L	D4052	0.84	0.85	0.86	0.87	0.86
Colour, ASTM	D1500	<0.5	<0.5	<0.5	<0.5	<1.0
<b>VISCOSITY</b>						
@ 40°C, cSt	D445	21.5	21.4	22.3	41.5	45.4
@ 100°C, cSt	D445	4.4	4.3	4.4	6.3	7.0
SUS @ 100°F	D2161	113	112	120	215	233
Viscosity Index	D2270	115	107	94	102	110
Pour Point, °C (°F)	D5950	-18 (0)	-24 (-11)	-18 (0)	-18 (0)	-15 (5)
Flash Point, PM, °C (°F)	D93	207 (405)	191 (376)	199 (390)	213 (415)	223 (433)
Flash Point, COC, °C (°F)	D92	210 (410)	225 (437)	210 (410)	240 (464)	230 (446)
<b>COLD CRANK SIMULATOR</b>						
@ -20°C, cP	D5293	-	741	935	3400	2770
@ -25°C, cP	D5293	1300	1321	1716	7000	6200
@ -30°C, cP	D5293	1876	2511	3438	-	-
@ -35°C, cP	D5293	2390	5004	7415	-	-
NOACK Volatility, % wt	D5800	15.5	22.4	33.6	10.0	10.0
% Saturates	PCM435	99.9	99.9	99.9	99.9	99.9
% Aromatics	PCM435	0.1	0.1	0.1	0.1	0.1
Sulfur, ppm	D5453	<1	<1	<1	<10	<5

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)

LUB3213E (2015.07) 2

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