

## HyPrene 60

### Naphthenic Process Oil Marketing Specification

This severely hydrotreated naphthenic process oil provides good solvency for the rubber and chemical processing industries. It has a low pour point, a low odor level, excellent color, and resistance to discoloration by heat or ultraviolet light.

TEST DESCRIPTION	TEST METHOD	SPECIFICATIONS		TYPICAL VALUES
		MIN	MAX	
<b>Physical Properties</b>				
Viscosity, SUS at 100°F (37.8°C)	ASTM D2161	50.0	65.0	60.1
Viscosity, SUS at 210°F (98.9°C)	ASTM D2161			34.3
Viscosity, cSt at 40°C (104°F)	ASTM D445	7.0	12.0	9.6
Viscosity, cSt at 100°C (212°F)	ASTM D445		3.0	2.4
API Gravity, 60°F (15.6°C)	ASTM D1250			28.1
Specific Gravity, 60°F (15.6°C)	ASTM D4052			0.8865
Viscosity-Gravity Constant	ASTM D2501			0.857
Density, lbs/gal at 60°F	ASTM D1250			7.383
Density at 15.6°C, g/cm <sup>3</sup>	ASTM D1250			0.8857
Molecular Weight	ASTM D2502			272
Flash Point, COC, °F (°C)	ASTM D92	295 (146)		308 (153)
Flash Point, PMCC, °F (°C)	ASTM D93	275 (135)		286 (141)
Color, ASTM	ASTM D6045		0.5	L0.5
Pour Point, °F (°C)	ASTM D5950		-45 (-43)	-83 (-64)
Volatility, wt%, 225°F (Evap. Loss)	ASTM D972			26.5
Water Content	ASTM D7546M		PASS	PASS
Appearance	ASTM D4176M		PASS	PASS
<b>Chemical Properties</b>				
Acid Number, mg KOH/g	ASTM D664		0.05	0.01
Aniline Point, °F (°C)	ASTM D611	160 (71)	180 (82)	169 (76)
Sulfur, ppm	ASTM D7212		500	44
Refractive Index, 20°C (68°F)	ASTM D1218			1.4833
UV Absorptivity at 260 nm	ASTM D2008		1.50	0.64
Clay-Gel, wt%	ASTM D2007			
Asphaltenes				<0.1
Polar Compounds				0.2
Aromatics				26.3
Saturates				73.5
Carbon Type Analysis, %	ASTM D2140			
Ca				5
Cn				50
Cp				45
<b>Health and Safety Properties</b>				
Polycyclic Aromatic Compounds, wt%	IP 346		3	<3
Modified Ames Assay, MI	ASTM E1687		1	<1
FDA Regulation	21 CFR 178.3620 (C)		PASS	PASS