

## HyGold P150BS

### Paraffinic Base Oil Marketing Specification

This severely hydrotreated paraffinic base oil provides excellent color stability and consistency. It passes the IP 346 labeling requirement.

TEST DESCRIPTION	TEST METHOD	SPECIFICATIONS		TYPICAL VALUES
		MIN	MAX	
<b>Physical Properties</b>				
Viscosity, SUS at 100°F (37.8°C)	ASTM D2161			2477
Viscosity, SUS at 210°F (98.9°C)	ASTM D2161	145.0	155.0	149.2
Viscosity, cSt at 40°C (104°F)	ASTM D445			462
Viscosity, cSt at 100°C (212°F)	ASTM D445	29.0	32.0	30.4
API Gravity, 60°F (15.6°C)	ASTM D1250			26.9
Specific Gravity, 60°F (15.6°C)	ASTM D4052			0.8931
Viscosity Index	ASTM D2270	92		95
Viscosity-Gravity Constant	ASTM D2501			0.800
Density, lbs/gal at 60°F	ASTM D1250			7.437
Molecular Weight	ASTM D2502			685
Flash Point, COC, °F (°C)	ASTM D92	560 (293)		579 (304)
Color, ASTM	ASTM D6045		4.5	L3.0
Pour Point, °F (°C)	ASTM D5949		20 (-7)	16 (-9)
Cloud Point, °F (°C)	ASTM D5773		28 (-2)	18 (-7)
Noack Volatility, wt%	ASTM D5800			1.1
Water Content	ASTM D7546M	PASS		PASS
Appearance	ASTM D4176M	PASS		PASS
<b>Chemical Properties</b>				
Conradson Carbon Residue, wt%	ASTM D4530		1.0	0.4
Acid Number, mg KOH/g	ASTM D664			0.02
Aniline Point, °F (°C)	ASTM D611	255.0 (123.9)	270.0 (132.2)	263.1 (128.4)
Sulfur, ppm	ASTM D7220		500	109
Clay Gel, Saturates, wt%	ASTM D2007	75.0		77.5
<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

Dated: 9-18-2015