

# SpectraSyn™ 100

## Polyalphaolefin (PAO) Fluid

### Product Description

SpectraSyn™ High Viscosity Polyalphaolefin (PAO) basestocks feature low temperature properties (pour point and viscosity), low volatility, and improved thermal stability. SpectraSyn™ High Viscosity PAO products high viscosity indices translate into improved flow at low temperatures and increased film thickness at high temperatures. SpectraSyn™ High Viscosity PAO basestocks are particularly suited for industrial oils requiring high stability under extreme operating conditions. SpectraSyn™ High Viscosity PAO products are frequently used in conjunction with lower viscosity fluids (PAO, mineral oils) as a viscosity booster to achieve a wide range of ISO VG industrial and automotive gear oils.

### General

Availability <sup>1</sup>	<ul style="list-style-type: none"> <li>▪ Africa &amp; Middle East</li> <li>▪ Asia Pacific</li> </ul>	<ul style="list-style-type: none"> <li>▪ Europe</li> <li>▪ Latin America</li> </ul>	<ul style="list-style-type: none"> <li>▪ North America</li> </ul>
Revision Date	<ul style="list-style-type: none"> <li>▪ 07/01/2019</li> </ul>		

Basics	Typical Value (English)	Typical Value (SI)	Test Based On
Specific Gravity (60.1°F (15.6°C))	0.853	0.853	ASTM D4052
Appearance (0°F (-18°C))	Bright & Clear	Bright & Clear	Visual
Color	< 0.5	< 0.5	ASTM D1500
Kinematic Viscosity			ASTM D445
212°F (100°C)	100 cSt	100 mm <sup>2</sup> /s	
104°F (40°C)	1240 cSt	1240 mm <sup>2</sup> /s	
32°F (0°C) <sup>2</sup>	25100 cSt	25100 mm <sup>2</sup> /s	
-4°F (-20°C) <sup>2</sup>	250000 cSt	250000 mm <sup>2</sup> /s	
Viscosity Index	170	170	ASTM D2270
Pour Point	-22 °F	-30 °C	ASTM D5950/D97
Flash Point, COC	541 °F	283 °C	ASTM D92
Water	< 50 ppm	< 50 ppm	ASTM D6304
Refractive Index <sup>2</sup> (77°F (25°C))	1.4715	1.4715	ASTM D1218
Total Acid Number	< 0.10 mg KOH/g	< 0.10 mg KOH/g	ASTM D974 (mod)

Flow	Typical Value (English)	Typical Value (SI)	Test Based On
Brookfield Viscosity <sup>2</sup> (-15°F (-26°C))	745000 cP	745000 cP	ASTM D2983
Surface Tension <sup>2</sup> (75°F (24°C))	32.5 dyne/cm	32.5 dyne/cm	ASTM D1331A

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Density Correction Factor <sup>2</sup>	5.97E-4 (g/cm <sup>3</sup> )/°C	5.97E-4 (g/cm <sup>3</sup> )/°C	ASTM D1250
Fire Point, COC <sup>2</sup>	626 °F	330 °C	ASTM D92
Evaporation Loss <sup>2</sup> (302°F (150°C), 22.0 hr)	0.3 wt%	0.3 wt%	ASTM D972
Evaporation Loss <sup>2</sup> (401°F (205°C), 6.5 hr)	2.3 wt%	2.3 wt%	ASTM D972 (mod)
Vapor Pressure <sup>2</sup> (392°F (200°C))	0.1 mm Hg	0.1 mm Hg	ASTM D2879

Performance	Typical Value (English)	Typical Value (SI)	Test Based On
Dielectric Constant <sup>2</sup> (77°F (25°C))	2.15	2.15	ASTM D924
Dielectric Strength <sup>2</sup>	46.5 kV	46.5 kV	ASTM D877

### Additional Information

Technical White Mineral Oil, 21 CFR 178.3620(b)  
National Sanitation Foundation (NSF) White book, category code H1, Lubricants with incidental food contact

### Legal Statement

For detailed Product Stewardship information, please contact Customer Service.

### Notes

Typical properties: these are not to be construed as specifications.

<sup>1</sup> Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

<sup>2</sup> Single sample or two sample average determinations

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For additional technical, sales and order assistance: [www.exxonmobilchemical.com/ContactUs](http://www.exxonmobilchemical.com/ContactUs)

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