

# 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

SpectraSyn™ 100  
Polyalphaolefin (PAO) Fluid

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

©2020 ExxonMobil. ExxonMobil, the ExxonMobil logo, the interlocking "X" device and other product or service names used herein are trademarks of ExxonMobil, unless indicated otherwise. This document may not be distributed, displayed, copied or altered without ExxonMobil's prior written authorization. To the extent ExxonMobil authorizes distributing, displaying and/or copying of this document, the user may do so only if the document is unaltered and complete, including all of its headers, footers, disclaimers and other information. You may not copy this document to or reproduce it in whole or in part on a website. ExxonMobil does not guarantee the typical (or other) values. Any data included herein is based upon analysis of representative samples and not the actual product shipped. The information in this document relates only to the named product or materials when not in combination with any other product or materials. We based the information on data believed to be reliable on the date compiled, but we do not represent, warrant, or otherwise guarantee, expressly or impliedly, the merchantability, fitness for a particular purpose, freedom from patent infringement, suitability, accuracy, reliability, or completeness of this information or the products, materials or processes described. The user is solely responsible for all determinations regarding any use of material or product and any process in its territories of interest. We expressly disclaim liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of or related to anyone using or relying on any of the information in this document. This document is not an endorsement of any non-ExxonMobil product or process, and we expressly disclaim any contrary implication. The terms "we," "our," "ExxonMobil Chemical" and "ExxonMobil" are each used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliate either directly or indirectly stewarded.

[exxonmobilchemical.com](http://exxonmobilchemical.com)