

# SpectraSyn™ 6

## Polyalphaolefin (PAO) Fluid

### Product Description

SpectraSyn™ Low Viscosity Polyalphaolefin (PAO) basestocks feature low temperature properties, low volatility, and improved thermal stability. SpectraSyn™ Low Viscosity PAO products have high viscosity indices which translate to improved flow at low temperatures and increased film thickness at high temperatures. SpectraSyn™ Low Viscosity PAO products are the primary basestocks for synthetic lubricants used in passenger car engines, heavy-duty diesel engines, transmissions, gear boxes and a variety of industrial applications.

### 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))	0.827	0.827	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)	5.8 cSt	5.8 mm <sup>2</sup> /s	
104°F (40°C)	31.0 cSt	31.0 mm <sup>2</sup> /s	
-40°F (-40°C) <sup>2</sup>	7800 cSt	7800 mm <sup>2</sup> /s	
-65°F (-54°C) <sup>2</sup>	68500 cSt	68500 mm <sup>2</sup> /s	
Viscosity Index	138	138	ASTM D2270
Pour Point	-71 °F	-57 °C	ASTM D5950/D97
Flash Point, COC	475 °F	246 °C	ASTM D92
Noack Volatility	6.4 wt%	6.4 wt%	ASTM D5800/DIN 51581
Water	< 50 ppm	< 50 ppm	ASTM D6304
Refractive Index <sup>2</sup> (77°F (25°C))	1.4565	1.4565	ASTM D1218
Total Acid Number	< 0.05 mg KOH/g	< 0.05 mg KOH/g	ASTM D974 (mod)

Flow	Typical Value (English)	Typical Value (SI)	Test Based On
Apparent Viscosity by Mini-Rotary Viscometer <sup>2</sup>			ASTM D4684
-40°F (-40°C)	6500 cP	6500 cP	
Brookfield Viscosity <sup>2</sup> (-40°F (-40°C))	7310 cP	7310 cP	ASTM D2983
Cold Cranking Simulator <sup>2</sup> (-22°F (-30°C))	2260 cP	2260 cP	ASTM D5293

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Density Correction Factor <sup>2</sup>	6.28E-4 (g/cm <sup>3</sup> )/°C	6.28E-4 (g/cm <sup>3</sup> )/°C	ASTM D1250
Fire Point, COC <sup>2</sup>	511 °F	266 °C	ASTM D92
Evaporation Loss <sup>2</sup> (302°F (150°C), 22.0 hr)	1.4 wt%	1.4 wt%	ASTM D972
Evaporation Loss <sup>2</sup> (401°F (205°C), 6.5 hr)	10.3 wt%	10.3 wt%	ASTM D972 (mod)
Vapor Pressure <sup>2</sup> (302°F (150°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))	2.11	2.11	ASTM D924
Dielectric Strength <sup>2</sup>	39.4 kV	39.4 kV	ASTM D877
High-Temp. High-Shear Viscosity <sup>2</sup>	2.08 cP	2.08 cP	ASTM D5481

Solubility	Typical Value (English)	Typical Value (SI)	Test Based On
Aniline Point <sup>2</sup>	259.0 °F	126.1 °C	ASTM D611
Kauri-Butanol Value <sup>2</sup>	10.9	10.9	ASTM D1133

## SpectraSyn™ 6 Polyalphaolefin (PAO) Fluid

### 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

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)