ExxonMobil

# 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 [1] | ▪ Africa & Middle East<br>▪ Asia Pacific | ▪ Europe<br>▪ Latin America | ▪ North America |
| Revision Date | ▪ 07/01/2019 | | |

| 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 | $mm^2/s$ | |
| 104°F (40°C) | 1240 | cSt | 1240 | $mm^2/s$ | |
| 32°F (0°C) [2] | 25100 | cSt | 25100 | $mm^2/s$ | |
| -4°F (-20°C) [2] | 250000 | cSt | 250000 | $mm^2/s$ | |
| 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 [2] (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 [2] (-15°F (-26°C)) | 745000 | cP | 745000 | cP | ASTM D2983 |
| Surface Tension [2] (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 [2] | 5.97E-4 | $(g/cm^3)/°C$ | 5.97E-4 | $(g/cm^3)/°C$ | ASTM D1250 |
| Fire Point, COC [2] | 626 | °F | 330 | °C | ASTM D92 |
| Evaporation Loss [2] (302°F (150°C), 22.0 hr) | 0.3 | wt% | 0.3 | wt% | ASTM D972 |
| Evaporation Loss [2] (401°F (205°C), 6.5 hr) | 2.3 | wt% | 2.3 | wt% | ASTM D972 (mod) |
| Vapor Pressure [2] (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 [2] (77°F (25°C)) | 2.15 | | 2.15 | | ASTM D924 |
| Dielectric Strength [2] | 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.

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

[2] Single sample or two sample average determinations

For additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs



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