

# Synfluid® PAO

Chevron Phillips Chemical leads the industry in developing high quality polyalphaolefins. PAOs are used in many synthetic products such as lubricants, greases and fluids, and have emerged as essential components in many applications.

The increase in PAO applications is largely driven by the stability of the PAO molecule. This stability, along with a host of other unique performance characteristics, makes PAOs far superior to mineral oils in a variety of end uses.

## PAOs have many advantages over mineral oils:

- Greater oxidative stability
- Superior volatility
- Excellent low-temperature viscosities
- Consistent, quality basestock
- Extremely high viscosity index
- Exceptional pour points
- Pure petrochemical feedstocks

## Typical Properties

<b>C10 Based PAOs Product</b>	<b>2 cSt</b>	<b>4 cSt</b>	<b>6 cSt</b>	<b>8 cSt</b>
Viscosity, Kinematic				
100 °C, cSt	1.7	3.8	5.9	7.8
40 °C, cSt	5.1	16.8	30.8	46.2
-40 °C, cSt	253	2,376	7,637	18,314
Viscosity Index	—	124	139	138
Pour Point, °C (°F)	-73 (-99)	-69 (-93)	-62 (-79)	-56 (-68)
Flash Point (COC), °C (°F)	158 (317)	222 (432)	246 (476)	261 (502)
Volatility, NOACK, Wt. %	—	13.6	6.8	3.8
Specific Gravity	0.7974	0.8186	0.8274	0.8319
Density, lb/gal	6.648	6.825	6.898	6.936

<b>C12 Based PAOs Product</b>	<b>2.5 cSt</b>	<b>5 cSt</b>	<b>6 HVI</b>	<b>7 cSt</b>	<b>8 HVI</b>	<b>9 cSt</b>
Viscosity, Kinematic						
100 °C, cSt	2.4	5.2	5.9	7.1	8	8.9
40 °C, cSt	8.3	24.7	29.1	38.0	45.9	53.0
-40 °C, cSt	1,811	4,852	7,000	10,557	—	—
Viscosity Index	—	145	150	150	148	148
Pour Point, °C (°F)	-52 (-62)	-46 (-51)	-44 (-47)	-44 (-47)	-36 (-32)	-36 (-32)
Flash Point (COC), °C (°F)	180 (355)	246 (475)	249 (480)	264 (507)	278 (532)	275 (527)
	—	5.9	4.9	3.7	2.4	3.1
Specific Gravity	0.8064	0.8240	0.8251	0.8301	0.8310	0.8338
Density, lb/gal	6.723	6.870	6.878	6.921	6.919	6.916