

## Product Datasheet

### Durasyn<sup>®</sup> 147

**Durasyn 147 polyalphaolefin** is a fully synthesized hydrogenated hydrocarbon base fluid produced from C12 linear alphaolefin feed stocks. Its engineered physical and performance properties are designed to extend the service life and enhance the performance of fully formulated lubricants operating under continuous low, high or wide temperature range conditions.

#### Features and Benefits

- Inherently thermally stable** ⇒ Resistant to thermal break down under non-routine high temperature excursions.
- Inherently oxidation resistant** ⇒ Extended replacement or reapplication cycles
- Engineered inherent low volatility** ⇒ Minimal top-off and reduced contamination of system components exposed to vapors
- Engineered to be highly shear stable** ⇒ Maintains viscosity grade over extended service life intervals
- Designed-in broad range viscometrics** ⇒ Suitable for exposure to low or high start-up or operating temperatures, or operation over wide temperature ranges

#### Intended Applications

Durasyn 147 is engineered for use in a wide variety of applications where the physical and performance properties of fully synthesized PAOs could be beneficial including:

- Reciprocating engine oils
- Gas and steam turbine oils
- Hydraulic and circulating oils
- Transportation and Industrial Oils

#### Compatibility

Durasyn 147 has been engineered to be either a near or direct substitute for existing PAO base oils and premium quality mineral oils. Compatibility with metals, elastomers, coatings and sealants is similar to other fully synthesized PAO base oils. Solubility is also similar to other fully synthesized PAO base oils.

#### TYPICAL PROPERTIES

Property	Test Method ISO/ASTM or	Unit Value	Typical Range
<b>Specific Gravity</b> , 15.6°C (60°F), kg/l (LB/gal)	12185 / D4052	0.831	0.810 – 0.840
<b>Viscosity Index</b>	2909 / D2270	144	142 - 147
<b>Viscosity</b> , mm <sup>2</sup> /s (cSt), 100°C (212°F)	3104 / D445	7.1	6.9 – 7.4
<b>Viscosity</b> , cSt, mm <sup>2</sup> /s (cSt), 40°C (104°F)	3104 / D445	39.4	35 – 43
<b>Viscosity</b> , cSt, mm <sup>2</sup> /s (cSt), - 40°C (104°F)	3104 / D445	11,600	14,000 max

Refer to the reverse page of this bulletin for important technical, liability and warranty information

### DURASYN 147 TYPICAL PROPERTIES (Continued)

Property	Test Method ISO/ASTM or	Unit Value	Typical Range
<b>Cold Cranking Simulator</b> , mPa • s (cP),	-- / D5293		
-25°C		1,750	N/D
-30°C		3,020	N/D
-35°C		5,070	N/D
<b>Pour Point</b> , °C (°F)	3016 / D97	-45	-40/-45
<b>Flash Point</b> , °C (°F)	2592 / D93	235	230-245
<b>Flash Point</b> , °C (°F)	2592 / D92	265	255 – 270
<b>Noack Volatility</b> , 250°C, 1hr,%wt. Evap.	CEC L 40-A-93	3.0	2.2-4.0
<b>Neutralizing Number (TAN)</b> , mg KOH/g	6618 / D974	<0.01	0.002-0.005
<b>Air Release</b> , min.		1.3	-
<b>Bromine Number</b> , g Br/100 g	--/ IP-129	0.10	0.20 max
<b>Aniline Point</b> , °C		133.4	-
<b>Appearance</b>		Clear/Bright	Observation
<b>Color</b>	2049 / D1500	<0.5	0.5 max
<b>Refractive Index @ 20°C</b>		1.4620	1.4612-1.4628
<b>% Transmission @ 440 nm</b>		99	>98
<b>Molecular Weight</b>	GC	630	
<b>IBP (1%)</b> , °C		454	
<b>FBP (99,5%)</b> , °C		648	

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