INEOS
Oligomers

Product Datasheet

Durasyn® 146

Durasyn 146 polyalphaolefin is a fully synthesized distilled and 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

Inherently oxidation resistant

Engineered inherent low volatility

Engineered to be highly shear stabile

Designed-in broad range viscometrics

- ⇨ Resistant to thermal break down under non-routine high temperature excursions.
- ⇨ Extended replacement or reapplication cycles
- ⇨ Minimal top-off and reduced contamination of system components exposed to vapors
- ⇨ Maintains viscosity grade over extended service life intervals
- ⇨ Suitable for exposure to low or high start-up or operating temperatures, or operation over wide temperature ranges

Intended Applications

Durasyn 146 is engineered for use in a wide variety of applications where the physical and performance properties of fully synthesized PAOs could be beneficial including:

- Transportation engine oils
- Automatic Transmission fluids
- Hydraulic and circulating oils

Compatibility

Durasyn 146 has been engineered to be either near or direct substitutes 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
Specific Gravity, 15.6°C (60°F), kg/l (LB/gal)	12185 / D4052	0.827	0.820 – 0.830
Viscosity Index	2909 / D2270	145	143 – 146 .
Viscosity, mm2/s (cSt), 100°C (212°F)	3104 / D445	5.9	5.8 – 6.0
Viscosity, cSt, mm2/s (cSt), 40°C (104°F)	3104 / D445	30.0	29.0 - 32.0
Viscosity, cSt, mm2/s (cSt), - 40°C (- 40 °F)	3104 / D445	7100	4900- 7400

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TYPICAL PROPERTIES (Continued)

Property	Test Method ISO/ASTM or	Unit Value	Typical Range
Cold Cranking Simulator, mPa • s (cP),	-- / D5293		
-25°C		--	N/D
-30°C		1,960	N/D
-35°C		3,340	N/D
Pour Point, °C (°F)	3016 / D97	-43	-40/-45
Flash Point, °C (°F)	2592 / D93	235	230-245
Flash Point, °C (°F)	2592 / D92	265	255 – 270
Noack Volatility, 250°C, 1hr,%wt. Evap.	CEC L 40-A-93	4.6	4.0 – 6.0
Neutralizing Number (TAN), mg KOH/g	6618 / D974	<0.01	0.002-0.005
Air Release,min.	IP313	<0.3	-
Bromine Number, g Br/100 g	--/ IP-129	0.20	0.40 max
Appearance		Clear/Bright	Observation
Color	2049 / D1500	<0.5	0.5 max
% Transmission @ 440 nm		>99	>99