

Product Datasheet

Durasyn[®] 166X

Durasyn 166X polyalphaolefin is a fully synthesized distilled and hydrogenated hydrocarbon base fluid produced from 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 166X is engineered for use in a wide variety of applications where the physical and performance properties of fully synthesized PAOs could be beneficial including:

- Automotive Engine Oils
- Heat Transfer fluids
- Hydraulic and circulating oils
- Compressor oils
- Industrial gear oils

Compatibility

Durasyn 166X 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	Typical Value
Specific Gravity , 15.6°C (60°F), kg/l (LB/gal)	12185 / D4052	0.827
Viscosity Index	2909 / D2270	139
Viscosity , mm ² /s (cSt), 100°C (212°F)	3104 / D445	5.87
Viscosity , cSt, mm ² /s (cSt), 40°C (104°F)	3104 / D445	30.6
Viscosity, cSt, mm²/s (cSt), - 40°C (-40°F)	3104 / D445	7790

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TYPICAL PROPERTIES (Continued)

Property	Test Method ISO/ASTM or	Typical Value
Cold Cranking Simulator , mPa • s (cP),	-- / D5293	
-30°C		2150
-35°C		4000
Pour Point , °C	3016 / D97	-57
Flash Point COC , °C	2592 / D93	244
Flash Point PMC , °C	2592 / D92	224
Neutralizing Number (TAN), mg KOH/g	6618 / D974	<0.01
Noack Volatility , 250°C, 1hr,%wt. Evap.	CEC L 40-A-93	7.3
Bromine Number , g Br/100 g	--/ IP-129	0.1
Copper Corrosion 3h 100°C	IP154	1A
3h 121°C		1A
Air Release 50°C, S	D 3427	<20 s
Aniline Point , °C	D611	126.8
Color	2049 / D1500	<0.5
Refractive Index @ 20°C		1.4593
% Transmission @ 440 nm		99.0

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