

Product Datasheet

Durasyn[®] 127

Durasyn 127 polyalphaolefin is a fully synthesized 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 127 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
- Automatic and continuously variable transmission fluids
- Transportation and industrial gear oils

Compatibility

Durasyn 127 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	Unit Range
Specific Gravity , 15.6°C (60°F), kg/l (LB/gal)	12185 / D4052	0.830	0.82 - 0.84
Viscosity Index	2909 / D2270	145	140 min
Viscosity , mm ² /s (cSt), 100°C (212°F)	3104 / D445	7.0	6.90 – 7.20
Viscosity , cSt, mm ² /s (cSt), 40°C (104°F)	3104 / D445	37.8	33.0 – 45.0

TYPICAL PROPERTIES (Continued)

Property	Test Method ISO/ASTM or	Unit Value	Unit Range
Cold Cranking Simulator , mPa • s (cP), -25°C	-- / D5293	1920	NA
-30°C		3080	NA
-35°C		5260	NA
Brookfield Viscosity , mPa • s (cP), -26°C	D2983	1970	NA
HTHS Viscosity 150°C , mPa • s (cP),	D4741	2.21	<2.6
Pour Point , °C (°F)	3016 / D97	-37	-35 max
Flash Point ,(PMC) °C /°F	2592 / D93	238/460	225 min
Flash Point , (COC) °C /°F	2592 / D92	260/500	NA
Neutralizing Number (TAN), mg KOH/g	6618 / D974	0.003	<0.1 max
Noack Volatility , 250°C, 1hr,%wt. Evap.	CEC L 40-A-93	2.9	4.0 max
Water Content , ppm	ASTM D3401	8	50 max
Bromine Number , g Br/100 g	--/ IP-129	0.08	0.20 max
Air Release 50°C , min	D 3427	<1min	NA
Surface Tension , mN/m	D 1331	27.4	NA
Color	2049 / D1500	<0.5	0.5 max
Refractive Index @ 20°C		1.4606	1.4606 +/- 0.0008
% Transmission @ 440 nm		99	>98

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Review the companion Material Safety Data Sheet (MSDS) for pertinent information regarding the safe use and handling of this product.

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