INEOS Oligomers

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Product Datasheet

Durasyn® 145

Durasyn 145 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 stabile	⇨	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 145 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 & Industrial Engine Oils

Compatibility

Durasyn 145 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
Specific Gravity, 15.6°C (60°F), kg/l (LB/gal)	12185 / D4052	0.825	0.810 – 0.840
Viscosity Index	2909 / D2270	145	142 - 147
Viscosity, mm^2/s (cSt), 100°C (212°F)	3104 / D445	5.0	5.0 – 5.3
Viscosity, cSt, mm^2/s (cSt), 40°C (104°F)	3104 / D445	25.0	24 – 26
Viscosity, cSt, mm^2/s (cSt), - 40°C (104°F)	3104 / D445	4,900	5,600 max

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

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DURASYN 145 TYPICAL PROPERTIES (Continued)

Property	Test Method ISO/ASTM or	Unit Value	Typical Range
Cold Cranking Simulator, mPa • s (cP),	-- / D5293		
-25°C		900	N/D
-30°C		1,500	N/D
-35°C		2,760	N/D
Pour Point, °C (°F)	3016 / D97	-45	-40 max
Flash Point PMC, °C (°F)	D93	226	215 min
Flash Point COC, °C (°F)	2592 / D92	243	-
Noack Volatility, 250°C, 1hr,%wt. Evap.	CEC L 40 –A-93	5.0	6.5 max
Neutralizing Number (TAN), mg KOH/g	6618 / D974	<0.01	0.01max
Air Release, min.	9120 / D3427	<1	-
Bromine Number, g Br/100 g	--/ IP-129	0.15	0.40 max
Aniline Point, °C	2977 / D611	126.6	-
Appearance		Clear/Bright	Observation
Color	2049 / D1500	<0.5	0.5 max
Refractive Index @ 20°C		1.4580	-
% Transmission @ 440 nm		99	>98
Molecular Weight	GC	513	
IBP (1%),°C		377	
FBP (99,5%),°C		545	