

Synesstic™ 12

Synthetic Fluid

Product Description

Synesstic™ Alkylated Naphthalene (AN) represent a unique class of API Group V category fluids. Synesstic™ AN products offer improved hydrolytic, thermal and oxidative stability versus other Group V fluids. Synesstic™ AN products are particularly suited for use as a blendstocks in synthetic lubricant applications that require high stability under extreme operating conditions.

General

Availability ¹	<ul style="list-style-type: none"> ▪ Africa & Middle East ▪ Asia Pacific 	<ul style="list-style-type: none"> ▪ Europe ▪ Latin America 	<ul style="list-style-type: none"> ▪ North America
Revision Date	▪ 10/01/2019		

Basics	Typical Value (English)	Typical Value (SI)	Test Based On
Specific Gravity (60.1°F (15.6°C))	0.887	0.887	ASTM D4052
Appearance	Bright & Clear	Bright & Clear	Visual
Color	< 4.0	< 4.0	ASTM D1500
Kinematic Viscosity			ASTM D445
212°F (100°C)	12.4 cSt	12.4 mm ² /s	
104°F (40°C)	109 cSt	109 mm ² /s	
-40°F (-40°C) ²	392500 cSt	392500 mm ² /s	
Viscosity Index	105	105	ASTM D2270
Pour Point	-33 °F	-36 °C	ASTM D5950/D97
Flash Point, COC	496 °F	258 °C	ASTM D92
Noack Volatility ²	4.5 wt%	4.5 wt%	ASTM D5800/DIN 51581
Bromine Number	< 1.0 g Br/100 g	< 1.0 g Br/100 g	ASTM D1159 (mod)
Water	< 50 ppm	< 50 ppm	ASTM D6304
Refractive Index ² (77°F (25°C))	1.5060	1.5060	ASTM D1218
Total Acid Number	< 0.05 mg KOH/g	< 0.05 mg KOH/g	ASTM D974 (mod)
Hydrolytic Stability, TAN Change ²	0.02 mg KOH/g	0.02 mg KOH/g	ASTM D2619

Flow	Typical Value (English)	Typical Value (SI)	Test Based On
Brookfield Viscosity ² (-15°F (-26°C))	22000 cP	22000 cP	ASTM D2983

Thermal	Typical Value (English)	Typical Value (SI)	Test Based On
Density Correction Factor ²	5.40E-4 (g/cm ³)/°C	5.40E-4 (g/cm ³)/°C	ASTM D1250
Fire Point, COC ²	554 °F	290 °C	ASTM D92
Flash Point, PMCC ²	464 °F	240 °C	ASTM D93
Evaporation Loss ² (401°F (205°C), 6.5 hr)	6.3 wt%	6.3 wt%	ASTM D972 (mod)

Performance	Typical Value (English)	Typical Value (SI)	Test Based On
RPVOT			ASTM D2272
Neat ²	180 min	180 min	
With AO ³	> 1400 min	> 1400 min	
Dielectric Strength ²	50.0 kV	50.0 kV	ASTM D877

Solubility	Typical Value (English)	Typical Value (SI)	Test Based On
Aniline Point ²	194.0 °F	90.0 °C	ASTM D611
Kauri-Butanol Value ²	10.0	10.0	ASTM D1133

Elastomer Compatibility, Fluoroelastomer	Typical Value (English)	Typical Value (SI)	Test Based On
Volume Change ²	0.4 %	0.4 %	ASTM D471
Hardness Change ²	0	0	ASTM D471
Tensile Strength Change ²	5.0 %	5.0 %	ASTM D471
Elongation Change ²	-0.1 %	-0.1 %	ASTM D471

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Elastomer Compatibility, Nitrile	Typical Value (English)	Typical Value (SI)	Test Based On
Volume Change ²	0.1 %	0.1 %	ASTM D471
Hardness Change ²	3	3	ASTM D471
Tensile Strength Change ²	-12.7 %	-12.7 %	ASTM D471
Elongation Change ²	-21.4 %	-21.4 %	ASTM D471

Elastomer Compatibility, Polyacrylate	Typical Value (English)	Typical Value (SI)	Test Based On
Volume Change ²	1.2 %	1.2 %	ASTM D471
Hardness Change ²	2	2	ASTM D471
Tensile Strength Change ²	15.7 %	15.7 %	ASTM D471
Elongation Change ²	-24.8 %	-24.8 %	ASTM D471

Additional Information

NSF H1, HX-1 Registered

Legal Statement

For detailed Product Stewardship information, please contact Customer Service.

Notes

Typical properties: these are not to be construed as specifications.

¹ Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.² Single sample or two sample average determinations³ Single sample or two sample average determinations 1 wt.% diphenylamines and phenyl naphthylamine antioxidant (AO) addedFor additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs

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