ExxonMobil

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]	▪ Africa & Middle East ▪ Asia Pacific	▪ Europe ▪ Latin America	▪ North America
Revision Date	▪ 04/10/2015		

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
U.S. FDA Food Contact Notification # 899

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 determinations

[3] Single sample or two sample average determinations 1 wt.% diphenylamines and phenyl naphthylamine antioxidant (AO) added

For additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs

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