ExxonMobil

Esterex™ TM111

Synthetic Fluid

Product Description

Esterex™ Trimellitate Esters are API category Group V fluids. These esters have excellent low-temperature properties, good lubricating properties and low volatilities. Esterex™ Trimellitate Esters can be used as sole basestocks or blendstocks with other synthetic fluids in many engine and industrial lubricant applications.

General

Availability [1]	▪ Asia Pacific	▪ Latin America	▪ North America
Revision Date	▪ 07/01/2019		

Basics	Typical Value (English)		Typical Value (SI)		Test Based On
Specific Gravity (68°F (20°C))	0.978		0.978		BRCP 4843
Appearance	Bright & Clear		Bright & Clear		Visual
Color	< 0.5		< 0.5		ASTM D1500
Kinematic Viscosity					ASTM D445
212°F (100°C)	11.9	cSt	11.9	mm^2/s	
104°F (40°C)	124	cSt	124	mm^2/s	
Viscosity Index	81		81		ASTM D2270
Pour Point	-27	°F	-33	°C	ASTM D5950/D97
Flash Point, COC [2]	525	°F	274	°C	ASTM D92
Noack Volatility [2]	1.4	wt%	1.4	wt%	ASTM D5800/DIN 51581
Water	< 1000	ppm	< 1000	ppm	ASTM D6304
Refractive Index [2] (77°F (25°C))	1.4845		1.4845		ASTM D1218
Total Acid Number	< 0.16	mg KOH/g	< 0.16	mg KOH/g	ASTM D974 (mod)
Hydrolytic Stability, TAN Change [2]	0.01	mg KOH/g	0.01	mg KOH/g	ASTM D2619

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Density Correction Factor [2]	7.33E-4	$(g/cm^3)/°C$	7.33E-4	$(g/cm^3)/°C$	ASTM D1250
Fire Point, COC [2]	576	°F	302	°C	ASTM D92
Flash Point, PMCC [2]	464	°F	240	°C	ASTM D93
Evaporation Loss [2] (401°F (205°C), 6.5 hr)	1.0	wt%	1.0	wt%	ASTM D972 (mod)

Performance	Typical Value (English)		Typical Value (SI)		Test Based On
RPVOT					ASTM D2272
Neat [2]	310	min	310	min	
With AO [3]	> 1210	min	> 1210	min	
Biodegradation [2]	< 1.0	%	< 1.0	%	OECD 301F

Solubility	Typical Value (English)		Typical Value (SI)		Test Based On
Aniline Point [2]	16.5	°F	-8.6	°C	ASTM D611
Kauri-Butanol Value [2]	35.0		35.0		ASTM D1133

Elastomer Compatibility, Fluoroelastomer	Typical Value (English)		Typical Value (SI)		Test Based On
Volume Change [2]	2.3	%	2.3	%	ASTM D471
Hardness Change [2]	-3		-3		ASTM D471
Tensile Strength Change [2]	-20.7	%	-20.7	%	ASTM D471
Elongation Change [2]	9.2	%	9.2	%	ASTM D471

Elastomer Compatibility, Nitrile	Typical Value (English)		Typical Value (SI)		Test Based On
Volume Change [2]	14.5	%	14.5	%	ASTM D471
Hardness Change [2]	-10		-10		ASTM D471
Tensile Strength Change [2]	-0.5	%	-0.5	%	ASTM D471
Elongation Change [2]	-18.8	%	-18.8	%	ASTM D471

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Elastomer Compatibility, Polyacrylate	Typical Value (English)	Typical Value (SI)	Test Based On
Volume Change [2]	18.1 %	18.1 %	ASTM D471
Hardness Change [2]	-16	-16	ASTM D471
Tensile Strength Change [2]	-24.3 %	-24.3 %	ASTM D471
Elongation Change [2]	15.1 %	15.1 %	ASTM D471

Additional Information

Product contains 0.2 to 0.3 wt% phenolic antioxidant

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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