

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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