


SABIC NORYL ENV150 PPE (Europe-Africa-Middle East) (Unverified Data**)



Categories: [Polymer](#); [Thermoplastic](#); [Polyphenylene Ether/PPO](#)

Material Notes: Noryl* ENV150 modified polyphenylene ether resin is an unfilled, flame retardant high heat grade suitable for extrusion molding conversion route. It uses non-chlorinated, non-brominated FR additives to deliver a UL94 V0 rating at 1.50 mm and has a Vicat ISO306 B/120 temperature of 160C.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.14 g/cc	0.0412 lb/in ³	ISO 1183
Moisture Absorption	0.0600 %	0.0600 %	23°C / 50% RH; ISO 62
Water Absorption at Saturation	0.30 %	0.30 %	ISO 62
Melt Index of Compound	10 g/10 min @ Load 5.00 kg, Temperature 280 °C	10 g/10 min @ Load 11.0 lb, Temperature 536 °F	MVR [cm ³ /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	55.0 MPa	7980 psi	50 mm/min; ISO 527
Tensile Strength, Yield	60.0 MPa	8700 psi	50 mm/min; ISO 527
Elongation at Break	15 %	15 %	50 mm/min; ISO 527
Elongation at Yield	4.0 %	4.0 %	50 mm/min; ISO 527
Tensile Modulus	2.40 GPa	348 ksi	1 mm/min; ISO 527
Flexural Yield Strength	85.0 MPa	12300 psi	2 mm/min; ISO 178
Flexural Modulus	2.30 GPa	334 ksi	2 mm/min; ISO 178
Izod Impact, Notched (ISO)	28.0 kJ/m ²	13.3 ft-lb/in ²	80*10*4; ISO 180/1A
	12.0 kJ/m ² @Temperature -30.0 °C	5.71 ft-lb/in ² @Temperature -22.0 °F	80*10*4; ISO 180/1A

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	ROA; IEC 60093
Dielectric Constant 	2.7 @Frequency 1.00e+6 Hz	2.7 @Frequency 1.00e+6 Hz	IEC 60250
	2.8 @Frequency 50.0 - 60.0 Hz	2.8 @Frequency 50.0 - 60.0 Hz	IEC 60250
Dielectric Strength	16.0 kV/mm @Thickness 3.20 mm	406 kV/in @Thickness 0.126 in	in oil; IEC 60243-1
Dissipation Factor 	0.0040 @Frequency 1.00e+6 Hz	0.0040 @Frequency 1.00e+6 Hz	IEC 60250
	0.010 @Frequency 50.0 - 60.0 Hz	0.010 @Frequency 50.0 - 60.0 Hz	IEC 60250

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	60.0 µm/m-°C @Temperature -40.0 - 40.0 °C	33.3 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
CTE, linear, Transverse to Flow	100 µm/m-°C @Temperature -40.0 - 40.0 °C	55.6 µin/in-°F @Temperature -40.0 - 104 °F	ISO 11359-2
Hot Ball Pressure Test	<= 125 °C	<= 257 °F	IEC 60695-10-2
Deflection Temperature at 1.8 MPa (264 psi)	135 °C	275 °F	Flatw 80*10*4 sp=64mm; ISO 75/At
Vicat Softening Point	155 °C	311 °F	Rate B/50; ISO 306
	160 °C	320 °F	Rate B/120; ISO 306
UL RTI, Electrical	65.0 °C	149 °F	UL 746B
UL RTI, Mechanical with Impact	65.0 °C	149 °F	UL 746B
UL RTI, Mechanical without Impact	65.0 °C	149 °F	UL 746B
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	UL 94 by SABIC-IP
Oxygen Index	32 %	32 %	ISO 4589
Glow Wire Flammability Index	960 °C @Thickness 1.00 mm	1760 °F @Thickness 0.0394 in	IEC 60695-2-12

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