

Polymer Resources PPX-FR1-[color]-EN Modified-PPO, V-0 Flame Retardant, Extrusion Grade

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO , Polyphenylene Ether, Heat Resistant

Material Notes:

Modified-Polyphenylene Oxide, V-0 Flame Retardant, 190F HDT, Extrusion GradeFeatures: • Bromine Free • Chlorine FreeProcess:

ExtrusionNotes: All physical, mechanical and thermal testing conducted on 1/8-inch thick, un-pigmented, test samples.Information provided by Polymer Resources Corporation.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Polymer-Resources-PPX-FR1-color-EN-Modified-PPO-V-0-Flame-Retardant-Extrusion-Grade.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.08 g/cc	1.08 g/cc	ASTM D792
Linear Mold Shrinkage	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	ASTM D955
Melt Flow	15 - 40 g/10 min @Load 11.6 kg, Temperature 250 °C	15 - 40 g/10 min @Load 25.6 lb, Temperature 482 °F	ASTM D1238

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	113	113	ASTM D785
Tensile Strength at Break	46.9 MPa	6800 psi	ASTM D638
Tensile Strength, Yield	56.5 MPa	8200 psi	ASTM D638
Elongation at Break	50 %	50 %	ASTM D638
Flexural Strength	89.6 MPa	13000 psi	ASTM D790
Flexural Modulus	2.28 GPa	330 ksi	ASTM D790
Izod Impact, Notched	1.60 J/cm @Temperature -40.0 °C	3.00 ft-lb/in @Temperature -40.0 °F	ASTM D256
	3.74 J/cm @Temperature 22.8 °C	7.00 ft-lb/in @Temperature 73.0 °F	ASTM D256
Gardner Impact	16.9 J	12.5 ft-lb	ASTM D3029

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	87.8 °C	190 °F	ASTM D648
Deflection Temperature at 1.8 MPa			

(264 psi) Thermal Properties	82.2 °C Metric	180 °F English	ASTM D648 Comments
UL RTI, Electrical	110 °C	230 °F	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	110 °C	230 °F	UL 746
	@Thickness 1.70 mm	@Thickness 0.0669 in	
	110 °C	230 °F	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
UL RTI, Mechanical with Impact	110 °C	230 °F	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	110 °C	230 °F	UL 746
	@Thickness 1.70 mm	@Thickness 0.0669 in	
	110 °C	230 °F	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
UL RTI, Mechanical without Impact	95.0 °C	203 °F	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	95.0 °C	203 °F	UL 746
	@Thickness 1.70 mm	@Thickness 0.0669 in	
	95.0 °C	203 °F	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
Flammability, UL94	V-0	V-0	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	V-0	V-0	
	@Thickness 3.00 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+17 ohm-cm	1.00e+17 ohm-cm	ASTM D257
Dielectric Strength	22.0 kV/mm	560 kV/in	ASTM D149
Comparative Tracking Index	250 - 400 V	250 - 400 V	UL 746
Hot Wire Ignition, HWI	>= 120 sec	>= 120 sec	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	>= 120 sec	>= 120 sec	UL 746

Electrical Properties	@Thickness 1.70 mm Metric	@Thickness 0.0669 in English	Comments
	>= 120 sec	>= 120 sec	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
High Amp Arc Ignition, HAI	60 - 120 arcs	60 - 120 arcs	UL 746
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	60 - 120 arcs	60 - 120 arcs	UL 746
	@Thickness 1.70 mm	@Thickness 0.0669 in	
	60 - 120 arcs	60 - 120 arcs	UL 746
	@Thickness 3.00 mm	@Thickness 0.118 in	
High Voltage Arc-Tracking Rate, HVTR	80.0 - 150 mm/min	3.15 - 5.91 in/min	UL 746

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	>= 171 °C	>= 340 °F	
Middle Barrel Temperature	>= 188 °C	>= 370 °F	
Front Barrel Temperature	>= 188 °C	>= 370 °F	
Melt Temperature	193 - 216 °C	380 - 420 °F	
Drying Temperature	71.1 - 82.2 °C	160 - 180 °F	
Dry Time	3.00 - 4.00 hour	3.00 - 4.00 hour	

Descriptive Properties	Value	Comments
Vent	0.001	

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