

SABIC Innovative Plastics NORYL PX1005X PPE+PS

Category : Polymer , Thermoplastic , Polyphenylene Ether/PPO , Polystyrene (PS)

Material Notes:

PPE+PS blend. Unfilled. Non-brominated, non-chlorinated FR system. UL94 V0/5VA rated. UL746C F1. Excelent dielectric strength.

Suitable for E/E market in indoor/outdoor applications.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-NORYL-PX1005X-PPEPS.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.12 g/cc	1.12 g/cc	ASTM D792
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	SABIC Method
	@Thickness 3.20 mm	@Thickness 0.126 in	
Linear Mold Shrinkage, Transverse	0.0050 - 0.0070 cm/cm	0.0050 - 0.0070 in/in	on Tensile Bar; SABIC Method
Melt Flow	37 g/10 min	37 g/10 min	ASTM D1238
	@Load 5.00 kg, Temperature 280 °C	@Load 11.0 lb, Temperature 536 °F	
Melt Index of Compound	37 g/10 min	37 g/10 min	MVR [cm ³ /10 min]; ISO 1133
	@Load 5.00 kg, Temperature 280 °C	@Load 11.0 lb, Temperature 536 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	41.0 MPa	5950 psi	Type I, 50 mm/min; ASTM D638
	43.0 MPa	6240 psi	50 mm/min; ISO 527
Tensile Strength, Yield	53.0 MPa	7690 psi	50 mm/min; ISO 527
	55.0 MPa	7980 psi	Type I, 50 mm/min; ASTM D638
Elongation at Break	12.5 %	12.5 %	50 mm/min; ISO 527
	17 %	17 %	Type I, 50 mm/min; ASTM D638
Elongation at Yield	2.8 %	2.8 %	50 mm/min; ISO 527
	3.1 %	3.1 %	Type I, 50 mm/min; ASTM D638
Tensile Modulus	2.40 GPa	348 ksi	50 mm/min; ASTM D638
	2.46 GPa	357 ksi	1 mm/min; ISO 527
Flexural Yield Strength	76.0 MPa	11000 psi	2 mm/min; ISO 178

Mechanical Properties	79.0 MPa Metric	11500 psi English	2.6 mm/min, 100 mm span; ASTM D790
	80.0 MPa	11600 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	2.20 GPa	319 ksi	2.6 mm/min, 100 mm span; ASTM D790
	2.43 GPa	352 ksi	ASTM D790
	2.48 GPa	360 ksi	2 mm/min; ISO 178
Izod Impact, Notched	3.00 J/cm	5.62 ft-lb/in	ASTM D256
	0.900 J/cm	1.69 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched	11.74 J/cm	21.99 ft-lb/in	ASTM D4812
Izod Impact, Notched (ISO)	22.0 kJ/m ²	10.5 ft-lb/in ²	80*10*4; ISO 180/1A
Charpy Impact, Notched	2.30 J/cm ²	10.9 ft-lb/in ²	Edgew 80*10*4 sp=62mm; ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	89.0 µm/m-°C	49.4 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
CTE, linear, Transverse to Flow	103 µm/m-°C	57.2 µin/in-°F	ASTM E 831
	@Temperature -40.0 - 40.0 °C	@Temperature -40.0 - 104 °F	
Deflection Temperature at 0.46 MPa (66 psi)	88.0 °C	190 °F	Edgew 120*10*4 sp=100mm; ISO 75/Be
	84.0 °C	183 °F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
	88.0 °C	190 °F	unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	
Deflection Temperature at 1.8 MPa (264 psi)	75.0 °C	167 °F	Edgew 120*10*4 sp=100mm; ISO 75/Ae
	72.0 °C	162 °F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
	78.0 °C	172 °F	unannealed; ASTM D648
	@Thickness 6.40 mm	@Thickness 0.252 in	

Vicat Softening Point Thermal Properties	94.0 °C Metric	201 °F English	Rate B/50; ISO 306 Comments
	97.0 °C	207 °F	Rate B/120; ISO 306
	107 °C	225 °F	Rate B/50; ASTM D1525
UL RTI, Electrical	95.0 °C	203 °F	UL 746B
UL RTI, Mechanical with Impact	80.0 °C	176 °F	UL 746B
UL RTI, Mechanical without Impact	95.0 °C	203 °F	UL 746B
Flammability, UL94	HB	HB	UL 94
	@Thickness 1.01 mm	@Thickness 0.0398 in	
	V-0	V-0	UL 94
	@Thickness 1.47 mm	@Thickness 0.0579 in	
	5VA	5VA	UL 94
	@Thickness 2.99 mm	@Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	3.30e+16 ohm-cm	3.30e+16 ohm-cm	ASTM D257
Surface Resistance	>= 1.00e+16 ohm	>= 1.00e+16 ohm	ASTM D257
Dielectric Constant	2.53	2.53	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	2.67	2.67	ASTM D150
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
Dielectric Strength	17.7 kV/mm	450 kV/in	in oil; ASTM D149
	@Thickness 3.20 mm	@Thickness 0.126 in	
Dissipation Factor	0.0026	0.0026	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.012	0.012	ASTM D150
	@Frequency 50.0 - 60.0 Hz	@Frequency 50.0 - 60.0 Hz	
Arc Resistance	0.00 - 60 sec	0.00 - 60 sec	Tungsten; ASTM D495
Comparative Tracking Index	400 - 600 V	400 - 600 V	UL 746A
Hot Wire Ignition, HWI			UL 746A

Electrical Properties	30 - 60 sec Metric	30 - 60 sec English	Comments
High Amp Arc Ignition, HAI	30 - 60 arcs	30 - 60 arcs	UL 746A
High Voltage Arc-Tracking Rate, HVTR	>= 150 mm/min	>= 5.91 in/min	UL 746A

Descriptive Properties	Value	Comments
UV-light, water exposure/immersion	F1	UL 746C

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China