

SABIC Innovative Plastics NORYL N850 PPE+PS

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

Material Notes:

ECO-FLO(tm). ECO conforming, nonhalogenated flame retardant PPE+PS. High flow. Electrical and Business Equipment applications.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-NORYL-N850-PPEPS.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.13 g/cc	1.13 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	
Melt Flow	14 g/10 min	14 g/10 min	ASTM D1238
	@Load 2.16 kg, Temperature 220 Å°C	@Load 4.76 lb, Temperature 428 Å°F	
	18 g/10 min	18 g/10 min	ASTM D1238
	@Load 3.80 kg, Temperature 260 Å°C	@Load 8.38 lb, Temperature 500 Å°F	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	48.0 MPa	6960 psi	Type I, 50 mm/min; ASTM D638
	61.0 MPa	8850 psi	50 mm/min; ISO 527
Tensile Strength, Yield	62.0 MPa	8990 psi	Type I, 50 mm/min; ASTM D638
	66.0 MPa	9570 psi	50 mm/min; ISO 527
Elongation at Break	4.5 %	4.5 %	50 mm/min; ISO 527
	18 %	18 %	Type I, 50 mm/min; ASTM D638
Elongation at Yield	3.2 %	3.2 %	50 mm/min; ISO 527
	3.6 %	3.6 %	Type I, 50 mm/min; ASTM D638
Tensile Modulus	2.62 GPa	380 ksi	50 mm/min; ASTM D638
	2.95 GPa	428 ksi	1 mm/min; ISO 527
Flexural Yield Strength	96.0 MPa	13900 psi	1.3 mm/min, 50 mm span; ASTM D790
	107 MPa	15500 psi	2 mm/min; ISO 178
	2.41 GPa	350 ksi	1.3 mm/min, 50 mm span; ASTM

Flexural Modulus Mechanical Properties	Metric	English	D790 Comments
	2.60 GPa	377 ksi	2 mm/min; ISO 178
Izod Impact, Notched	2.13 J/cm	3.99 ft-lb/in	ASTM D256
Izod Impact, Notched (ISO)	10.0 kJ/m ²	4.76 ft-lb/in ²	80*10*4; ISO 180/1A
Dart Drop, Total Energy	31.0 J @Temperature 23.0 Â°C	22.9 ft-lb @Temperature 73.4 Â°F	ASTM D3763

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	77.4 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	43.0 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ASTM E 831
CTE, linear, Transverse to Flow	81.0 Âµm/m-Â°C @Temperature -40.0 - 40.0 Â°C	45.0 Âµin/in-Â°F @Temperature -40.0 - 104 Â°F	ASTM E 831
Deflection Temperature at 0.46 MPa (66 psi)	95.0 Â°C	203 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	93.0 Â°C @Thickness 3.20 mm	199 Â°F @Thickness 0.126 in	unannealed; ASTM D648
	98.0 Â°C @Thickness 6.40 mm	208 Â°F @Thickness 0.252 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	82.0 Â°C	180 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	82.0 Â°C @Thickness 3.20 mm	180 Â°F @Thickness 0.126 in	unannealed; ASTM D648
	86.0 Â°C @Thickness 6.40 mm	187 Â°F @Thickness 0.252 in	unannealed; ASTM D648
Vicat Softening Point	101 Â°C	214 Â°F	Rate B/50; ASTM D1525
	108 Â°C	226 Â°F	Rate B/120; ISO 306
UL RTI, Electrical	50.0 Â°C	122 Â°F	UL 746B
UL RTI, Mechanical with Impact	50.0 Â°C	122 Â°F	UL 746B
UL RTI, Mechanical without Impact	50.0 Â°C	122 Â°F	UL 746B
Flammability, UL94	HB	HB	UL 94

Thermal Properties	@Thickness 0.990 mm Metric	@Thickness 0.0390 in English	Comments
	V-0	V-0	UL 94
	@Thickness 1.49 mm	@Thickness 0.0587 in	
	5VA	5VA	UL 94
	@Thickness 2.99 mm	@Thickness 0.118 in	
Oxygen Index	36.4 %	36.4 %	ASTM D2863

Electrical Properties	Metric	English	Comments
Comparative Tracking Index	250 - 400 V	250 - 400 V	UL 746A
Hot Wire Ignition, HWI	30 - 60 sec	30 - 60 sec	UL 746A
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	F2	UL 746C

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