

SABIC Innovative Plastics NORYL NH5120C PPE+PS

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

Material Notes:

Noryl* NH5120C resin is a modified PPE-PS blend that exhibits an excellent balance of nonhalogenated flame retardance, good chemical resistance, and low specific gravity for light weight parts. The resin will be available in custom colors and is suitable for injection molding.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-NORYL-NH5120C-PPEPS.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.08 g/cc	1.08 g/cc	ASTM D792
Density	1.08 g/cc	0.0390 lb/in ³	ISO 1183
Moisture Absorption	0.0500 %	0.0500 %	23 ^o C / 50% RH; ISO 62
Water Absorption at Saturation	0.25 %	0.25 %	ISO 62
Linear Mold Shrinkage, Flow	0.0060 - 0.0080 cm/cm @Thickness 3.20 mm	0.0060 - 0.0080 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	20.6 g/10 min @Load 5.00 kg, Temperature 300 ^o C	20.6 g/10 min @Load 11.0 lb, Temperature 572 ^o F	ASTM D1238
Melt Index of Compound	21 g/10 min @Load 5.00 kg, Temperature 300 ^o C	21 g/10 min @Load 11.0 lb, Temperature 572 ^o F	MVR [cm ³ /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	54.0 MPa	7830 psi	Type I, 50 mm/min; ASTM D638
	56.0 MPa	8120 psi	50 mm/min; ISO 527
Tensile Strength, Yield	64.0 MPa	9280 psi	50 mm/min; ISO 527
	68.0 MPa	9860 psi	Type I, 50 mm/min; ASTM D638
Elongation at Break	12.5 %	12.5 %	50 mm/min; ISO 527
	13 %	13 %	Type I, 50 mm/min; ASTM D638
Elongation at Yield	4.3 %	4.3 %	50 mm/min; ISO 527
	4.5 %	4.5 %	Type I, 50 mm/min; ASTM D638
Tensile Modulus	2.52 GPa	365 ksi	1 mm/min; ISO 527

Mechanical Properties	2.70 GPa Metric	392 ksi English	5 mm/min: ASTM D638 Comments
Flexural Yield Strength	101 MPa	14600 psi	1.3 mm/min, 50 mm span; ASTM D790
	103 MPa	14900 psi	2 mm/min; ISO 178
Flexural Modulus	2.58 GPa	374 ksi	2 mm/min; ISO 178
	2.65 GPa	384 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	2.28 J/cm	4.27 ft-lb/in	ASTM D256
	1.45 J/cm @Temperature -30.0 Â°C	2.72 ft-lb/in @Temperature -22.0 Â°F	ASTM D256
Izod Impact, Notched (ISO)	16.0 kJ/mÂ²	7.61 ft-lb/inÂ²	80*10*4; ISO 180/1A
	11.0 kJ/mÂ² @Temperature -30.0 Â°C	5.23 ft-lb/inÂ² @Temperature -22.0 Â°F	80*10*4; ISO 180/1A
Charpy Impact, Notched	1.70 J/cmÂ²	8.09 ft-lb/inÂ²	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	50.0 J	36.9 ft-lb	ASTM D3763
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	76.3 Âµm/m-Â°C	42.4 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	76.3 Âµm/m-Â°C	42.4 Âµin/in-Â°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
CTE, linear, Transverse to Flow	7.50 Âµm/m-Â°C	4.17 Âµin/in-Â°F	ISO 11359-2
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	75.2 Âµm/m-Â°C	41.8 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
Deflection Temperature at 1.8 MPa (264 psi)	119 Â°C	246 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/ Af
	118 Â°C	244 Â°F	

Thermal Properties	@Thickness 3.20 mm Metric	@Thickness 0.126 in English	Comments
Vicat Softening Point	137 Â°C	279 Â°F	Rate B/50; ASTM D1525
	137 Â°C	279 Â°F	Rate B/50; ISO 306
	139 Â°C	282 Â°F	Rate B/120; ISO 306
UL RTI, Electrical	65.0 Â°C	149 Â°F	UL 746B
UL RTI, Mechanical with Impact	65.0 Â°C	149 Â°F	UL 746B
UL RTI, Mechanical without Impact	65.0 Â°C	149 Â°F	UL 746B
Flammability, UL94	V-1 @Thickness 1.50 mm	V-1 @Thickness 0.0591 in	UL 94 by SABIC-IP

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