

SABIC Innovative Plastics Xenoy[®] X4870HH PC+PET (Asia Pacific)

Category : Polymer , Thermoplastic , ABS Polymer , Polycarbonate/ABS Alloy, Unreinforced , Polycarbonate (PC)

Material Notes:

Xenoy X4870HH is a high heat, very high modulus and ductile PC/PET blend. Furthermore this resin provides chemical resistance, very low creep, low CTE, excellent fatigue and high heat dimensional stability. The X4870HH could be positioned for body panels, housings, medical device enclosures, outdoor sports equipment.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Xenoy-X4870HH-PCPET-Asia-Pacific.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.34 g/cc	1.34 g/cc	ASTM D792
Density	1.34 g/cc	0.0484 lb/in ³	ISO 1183
Moisture Absorption	0.140 %	0.140 %	23 [°] C / 50% RH; ISO 62
Water Absorption at Saturation	0.42 %	0.42 %	ISO 62
Linear Mold Shrinkage, Flow	0.0050 - 0.0070 cm/cm @Thickness 3.20 mm	0.0050 - 0.0070 in/in @Thickness 0.126 in	SABIC Method
Melt Flow	8.0 g/10 min @Load 5.00 kg, Temperature 266 [°] C	8.0 g/10 min @Load 11.0 lb, Temperature 511 [°] F	ASTM D1238
Melt Index of Compound	7.0 g/10 min @Load 5.00 kg, Temperature 265 [°] C	7.0 g/10 min @Load 11.0 lb, Temperature 509 [°] F	MVR [cm ³ /10 min]; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, H358/30	105 MPa	15200 psi	ISO 2039-1
Tensile Strength at Break	45.0 MPa	6530 psi	Type I, 5 mm/min; ASTM D638
	45.0 MPa	6530 psi	5 mm/min; ISO 527
	45.0 MPa	6530 psi	50 mm/min; ISO 527
	50.0 MPa	7250 psi	Type I, 50 mm/min; ASTM D638
Tensile Strength, Yield	61.0 MPa	8850 psi	Type I, 5 mm/min; ASTM D638
	63.0 MPa	9140 psi	5 mm/min; ISO 527
	65.0 MPa	9430 psi	Type I, 50 mm/min; ASTM D638
	67.0 MPa	9720 psi	50 mm/min; ISO 527

Mechanical Properties	Metric	English	Comments
Elongation at Break	10 %	10 %	5 mm/min; ISO 527
	10 %	10 %	50 mm/min; ISO 527
	30 %	30 %	Type I, 50 mm/min; ASTM D638
	60 %	60 %	Type I, 5 mm/min; ASTM D638
Elongation at Yield	3.3 %	3.3 %	Type I, 50 mm/min; ASTM D638
	3.6 %	3.6 %	5 mm/min; ISO 527
	3.7 %	3.7 %	Type I, 5 mm/min; ASTM D638
	3.8 %	3.8 %	50 mm/min; ISO 527
Tensile Modulus	4.30 GPa	624 ksi	1 mm/min; ISO 527
	4.60 GPa	667 ksi	5 mm/min; ASTM D638
Flexural Yield Strength	98.0 MPa	14200 psi	2 mm/min; ISO 178
	104 MPa	15100 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	4.00 GPa	580 ksi	2 mm/min; ISO 178
	4.25 GPa	616 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	0.900 J/cm	1.69 ft-lb/in	ASTM D256
	0.700 J/cm	1.31 ft-lb/in	ASTM D256
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	0.800 J/cm	1.50 ft-lb/in	ASTM D256
	@Temperature 0.000 °C	@Temperature 32.0 °F	
Izod Impact, Notched (ISO)	10.0 kJ/m ²	4.76 ft-lb/in ²	80*10*4; ISO 180/1A
	6.00 kJ/m ²	2.86 ft-lb/in ²	80*10*4; ISO 180/1A
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Izod Impact, Unnotched (ISO)	NB	NB	80*10*4; ISO 180/1U
Charpy Impact Unnotched	NB	NB	Edgew 80*10*4 sp=62mm; ISO 179/1eU
Charpy Impact, Notched	1.10 J/cm ²	5.23 ft-lb/in ²	Edgew 80*10*4 sp=62mm; ISO 179/1eA
	0.700 J/cm ²	3.33 ft-lb/in ²	

Mechanical Properties	Metric	English	Comments
	@Temperature -30.0 °C	@Temperature -22.0 °F	Edgew 80*10*4 sp=62mm; ISO 178/154
Dart Drop, Total Energy	60.0 J @Temperature 23.0 °C	44.3 ft-lb @Temperature 73.4 °F	ASTM D3763
	60.0 J @Temperature -20.0 °C	44.3 ft-lb @Temperature -4.00 °F	ASTM D3763
Impact Test	90.0 J	66.4 ft-lb	Multiaxial Impact; ISO 6603
Taber Abrasion, mg/1000 Cycles	30	30	CS-17, 1 kg; SABIC Method

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	43.0 µm/m-°C @Temperature -40.0 - 40.0 °C	23.9 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
	48.0 µm/m-°C @Temperature -30.0 - 80.0 °C	26.7 µin/in-°F @Temperature -22.0 - 176 °F	ISO 11359-2
CTE, linear, Transverse to Flow	64.0 µm/m-°C @Temperature -40.0 - 40.0 °C	35.6 µin/in-°F @Temperature -40.0 - 104 °F	ASTM E 831
	68.0 µm/m-°C @Temperature -30.0 - 80.0 °C	37.8 µin/in-°F @Temperature -22.0 - 176 °F	ISO 11359-2
Thermal Conductivity	0.200 W/m-K	1.39 BTU-in/hr-ft²- °F	ISO 8302
Deflection Temperature at 0.46 MPa (66 psi)	131 °C	268 °F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	132 °C @Thickness 3.20 mm	270 °F @Thickness 0.126 in	unannealed; ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	113 °C	235 °F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	113 °C @Thickness 3.20 mm	235 °F @Thickness 0.126 in	unannealed; ASTM D648
Vicat Softening Point	137 °C	279 °F	Rate B/50; ASTM D1525
	137 °C	279 °F	Rate B/50; ISO 306

Thermal Properties

139 Å°C
Metric

282 Å°F
English

Rate B/120: ISO 306
Comments

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