

SABIC Innovative Plastics Xenoy® X4810 PBT+PC (Europe-Africa-Middle East)

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate/Polybutylene Terephthalate (PBT) Blend, Unreinforced , Polyester, TP , Polybutylene Terephthalate (PBT)

Material Notes:

Xenoy X4810 is a hydrostable, High Modulus Ductile PC/PBT blend. This resin provides low temperature (below 0C) ductile impact behaviour, high chemical resistance, very low creep, low CTE, excellent fatigue and high heat dimensional stability. Xenoy X4810 resin can be considered for body panels, safety equipment, housings, doorhandles, spring-loaded applications, medical device enclosures, outdoor sports equipment.

Order this product through the following link:

http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Xenoy-X4810-PBTPC-Europe-Africa-Middle-East.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.25 g/cc	1.25 g/cc	ASTM D792
Density	1.25 g/cc	0.0452 lb/in ³	ISO 1183
Moisture Absorption	0.140 %	0.140 %	23Â°C / 50% RH; ISO 62
Water Absorption at Saturation	0.42 %	0.42 %	ISO 62
Linear Mold Shrinkage, Flow	0.0070 - 0.0090 cm/cm	0.0070 - 0.0090 in/in	SABIC Method
	@Thickness 3.20 mm	@Thickness 0.126 in	
Melt Flow	12 g/10 min	12 g/10 min	ASTM D1238
	@Load 5.00 kg, Temperature 266 Â°C	@Load 11.0 lb, Temperature 511 Â°F	
Melt Index of Compound	10 g/10 min	10 g/10 min	MVR [cm ³ /10 min]; ISO 1133
	@Load 5.00 kg, Temperature 265 Â°C	@Load 11.0 lb, Temperature 509 Â°F	

Mechanical Properties	Metric	English	Comments
Hardness, H358/30	105 MPa	15200 psi	ISO 2039-1
Tensile Strength at Break	55.0 MPa	7980 psi	5 mm/min; ISO 527
	55.0 MPa	7980 psi	50 mm/min; ISO 527
	60.0 MPa	8700 psi	Type I, 50 mm/min; ASTM D638
	65.0 MPa	9430 psi	Type I, 5 mm/min; ASTM D638
	55.0 MPa	7980 psi	Type I, 5 mm/min; ASTM D638
Tensile Strength, Yield	55.0 MPa	7980 psi	5 mm/min; ISO 527
	55.0 MPa	7980 psi	5 mm/min; ISO 527

Mechanical Properties	Metric	English	Comments
	60.0 MPa	8700 psi	50 mm/min; ISO 527
Elongation at Break	100 %	100 %	5 mm/min; ISO 527
	100 %	100 %	50 mm/min; ISO 527
	150 %	150 %	Type I, 50 mm/min; ASTM D638
	150 %	150 %	Type I, 5 mm/min; ASTM D638
Elongation at Yield	4.1 %	4.1 %	5 mm/min; ISO 527
	4.1 %	4.1 %	50 mm/min; ISO 527
	4.5 %	4.5 %	Type I, 50 mm/min; ASTM D638
	4.7 %	4.7 %	Type I, 5 mm/min; ASTM D638
Tensile Modulus	2.75 GPa	399 ksi	1 mm/min; ISO 527
	2.90 GPa	421 ksi	5 mm/min; ASTM D638
Flexural Yield Strength	87.0 MPa	12600 psi	2 mm/min; ISO 178
	93.0 MPa	13500 psi	1.3 mm/min, 50 mm span; ASTM D790
Flexural Modulus	2.50 GPa	363 ksi	2 mm/min; ISO 178
	2.70 GPa	392 ksi	1.3 mm/min, 50 mm span; ASTM D790
Izod Impact, Notched	7.50 J/cm	14.1 ft-lb/in	ASTM D256
	1.50 J/cm	2.81 ft-lb/in	ASTM D256
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	
	5.00 J/cm	9.37 ft-lb/in	ASTM D256
	@Temperature 0.000 Â°C	@Temperature 32.0 Â°F	
Izod Impact, Notched (ISO)	50.0 kJ/mÂ²	23.8 ft-lb/inÂ²	80*10*4; ISO 180/1A
	12.0 kJ/mÂ²	5.71 ft-lb/inÂ²	80*10*4; ISO 180/1A
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	
	20.0 kJ/mÂ²	9.52 ft-lb/inÂ²	80*10*4; ISO 180/1A
	@Temperature 0.000 Â°C	@Temperature 32.0 Â°F	

Izod Impact Unnotched (ISO) Mechanical Properties	NB Metric	NB English	80*10*4; ISO 180/1U Comments
	NB	NB	
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	80*10*4; ISO 180/1U
Charpy Impact Unnotched	NB	NB	Edgew 80*10*4 sp=62mm; ISO 179/1eU
	NB	NB	
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	Edgew 80*10*4 sp=62mm; ISO 179/1eU
Charpy Impact, Notched	5.00 J/cmÂ²	23.8 ft-lb/inÂ²	Edgew 80*10*4 sp=62mm; ISO 179/1eA
	1.50 J/cmÂ²	7.14 ft-lb/inÂ²	
	@Temperature -30.0 Â°C	@Temperature -22.0 Â°F	Edgew 80*10*4 sp=62mm; ISO 179/1eA
Dart Drop, Total Energy	70.0 J	51.6 ft-lb	ASTM D3763
	@Temperature 23.0 Â°C	@Temperature 73.4 Â°F	
	70.0 J	51.6 ft-lb	
	@Temperature -20.0 Â°C	@Temperature -4.00 Â°F	ASTM D3763
Impact Test	110 J	81.1 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	69.0 Âµm/m-Â°C	38.3 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	80.0 Âµm/m-Â°C	44.4 Âµin/in-Â°F	
	@Temperature -30.0 - 80.0 Â°C	@Temperature -22.0 - 176 Â°F	ISO 11359-2
CTE, linear, Transverse to Flow	83.0 Âµm/m-Â°C	46.1 Âµin/in-Â°F	ASTM E 831
	@Temperature -40.0 - 40.0 Â°C	@Temperature -40.0 - 104 Â°F	
	90.0 Âµm/m-Â°C	50.0 Âµin/in-Â°F	
	@Temperature -30.0 - 80.0 Â°C	@Temperature -22.0 - 176 Â°F	ISO 11359-2
Thermal Conductivity	0.200 W/m-K	1.39 BTU-in/hr-ftÂ²- Â°F	ISO 8302

Thermal Properties	Metric	English	Comments
Heat Deflection Temperature at 0.46 MPa (66 psi)	115.0 Â°C	239.0 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Bf
	120.0 Â°C	248.0 Â°F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Deflection Temperature at 1.8 MPa (264 psi)	91.0 Â°C	196.0 Â°F	Flatw 80*10*4 sp=64mm; ISO 75/Af
	98.0 Â°C	208.0 Â°F	unannealed; ASTM D648
	@Thickness 3.20 mm	@Thickness 0.126 in	
Vicat Softening Point	131.0 Â°C	268.0 Â°F	Rate B/50; ASTM D1525
	131.0 Â°C	268.0 Â°F	Rate B/50; ISO 306
	133.0 Â°C	271.0 Â°F	Rate B/120; ISO 306

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