

XENOY™ Resin 6620 - Americas

Polycarbonate + PBT

SABIC

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

PBT+PC, Unreinforced, impact modified thermoplastic alloy. Outstanding impact at low temperature

General

Material Status	• Commercial: Active
UL Yellow Card ¹	• E121562-221088
Search for UL Yellow Card	• SABIC • XENOY™ Resin
Availability	• Latin America • North America
Uses	• Construction Applications • Electrical/Electronic Applications • Lawn and Garden Equipment • Medical/Healthcare Applications • Outdoor Applications
Multi-Point Data	• Elastic Modulus vs. Temperature (ASTM D4065) • Flexural DMA (ASTM D5023) • Instrumented Impact (Energy) (ASTM D3763) • Instrumented Impact (Load) (ASTM D3763) • Tensile Creep (ASTM D2990) • Tensile Fatigue • Tensile Stress vs. Strain (ASTM D638)
Also Available In	• Asia Pacific

Physical

	Nominal Value Unit	Test Method
Density / Specific Gravity	1.20 g/cm ³	ASTM D792
Specific Volume	0.830 cm ³ /g	ASTM D792
Molding Shrinkage		Internal Method
Across Flow : 3.20 mm	1.6 to 1.8 %	
Flow : 3.20 mm	1.5 to 2.0 %	
Water Absorption (24 hr, 23°C)	0.080 %	ASTM D570

Mechanical

	Nominal Value Unit	Test Method
Tensile Strength ³ (Yield)	43.0 MPa	ASTM D638
Tensile Elongation ³ (Break)	180 %	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	1720 MPa	ASTM D790
Flexural Strength ⁴ (Yield, 50.0 mm Span)	64.0 MPa	ASTM D790

Impact

	Nominal Value Unit	Test Method
Notched Izod Impact		ASTM D256
-30°C	670 J/m	
23°C	850 J/m	
Unnotched Izod Impact (23°C)	1600 J/m	ASTM D4812
Gardner Impact (23°C)	• 54.0 J • 54.0 J	ASTM D3029

Hardness

	Nominal Value Unit	Test Method
Rockwell Hardness (R-Scale)	108	ASTM D785

Thermal

	Nominal Value Unit	Test Method
Deflection Temperature Under Load		ASTM D648
0.45 MPa, Unannealed, 3.20 mm	93.0 °C	
0.45 MPa, Unannealed, 6.40 mm	98.0 °C	
1.8 MPa, Unannealed, 3.20 mm	53.0 °C	
1.8 MPa, Unannealed, 6.40 mm	60.0 °C	



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Thermal	Nominal Value Unit	Test Method
CLTE		ASTM E831
Flow : -40 to 40°C	9.4E-5 cm/cm/°C	
Flow : 60 to 138°C	1.0E-4 cm/cm/°C	
Transverse : -40 to 40°C	9.8E-5 cm/cm/°C	
RTI Elec	75.0 °C	UL 746B
RTI Imp	75.0 °C	UL 746B
RTI Str	75.0 °C	UL 746B
Electrical	Nominal Value Unit	Test Method
Volume Resistivity	5.5E+16 ohms·cm	ASTM D257
Dielectric Strength		ASTM D149
1.60 mm, in Oil	28 kV/mm	
3.20 mm, in Air	19 kV/mm	
3.20 mm, in Oil	19 kV/mm	
Dielectric Constant		ASTM D150
100 Hz	3.10	
100 kHz	3.00	
1 MHz	3.00	
Dissipation Factor		ASTM D150
100 Hz	2.0E-3	
100 kHz	0.020	
1 MHz	0.020	
Arc Resistance ⁵	PLC 5	ASTM D495
Comparative Tracking Index (CTI)	PLC 0	UL 746A
High Amp Arc Ignition (HAI) ⁶	PLC 0	UL 746A
High Voltage Arc Resistance to Ignition (HVAR)	PLC 1	UL 746A
Hot-wire Ignition (HWI)	PLC 3	UL 746A
Flammability	Nominal Value Unit	Test Method
Flame Rating (1.5 mm)	HB	UL 94
Injection	Nominal Value Unit	
Drying Temperature	105 to 115 °C	
Drying Time	2.0 to 4.0 hr	
Suggested Max Moisture	0.020 %	
Suggested Shot Size	50 to 80 %	
Rear Temperature	225 to 245 °C	
Middle Temperature	230 to 250 °C	
Front Temperature	240 to 260 °C	
Nozzle Temperature	240 to 260 °C	
Processing (Melt) Temp	240 to 260 °C	
Mold Temperature	50 to 80 °C	
Back Pressure	0.200 to 0.300 MPa	
Vent Depth	0.013 to 0.020 mm	

Injection Notes

- Drying Time (Cumulative): 6 hr



Notes

¹ A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

² Typical properties: these are not to be construed as specifications.

³ Type I, 50 mm/min

⁴ 1.3 mm/min

⁵ Tungsten Electrode

⁶ Surface

