

XENOY™ 6370 resin

Polycarbonate + PBT
SABIC Innovative Plastics

Message:
30% glass-reinforced, impact modified thermoplastic alloy. Improved toughness and ductility.

General Information			
UL YellowCard	E121562-221087		
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Additive	Impact Modifier		
Features	Ductile		
	Good Toughness		
	Impact Modified		
Processing Method	Injection Molding		
Multi-Point Data	Coefficient of Thermal Expansion vs. Temperature (ASTM E831)		
	Elastic Modulus vs Temperature (ASTM D4065)		
	Flexural DMA (ASTM D4065)		
	Instrumented Impact (Energy) (ASTM D3763)		
	Instrumented Impact (Load) (ASTM D3763)		
	Shear DMA (ASTM D4065)		
	Tensile Creep (ASTM D2990)		
	Tensile Fatigue		
	Tensile Stress vs. Strain (ASTM D638)		
	Thermal Conductivity vs. Temperature (ASTM E1530)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.44	g/cm³	ASTM D792, ISO 1183
Specific Volume	0.700	cm³/g	ASTM D792
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	24	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR)			ISO 1133
250°C/5.0 kg	12.0	cm³/10min	
265°C/5.0 kg	19.0	cm³/10min	
Molding Shrinkage			Internal Method
Flow ¹	0.30 to 0.40	%	
Flow ²	0.40 to 0.50	%	
Across Flow ³	0.40 to 0.70	%	
Across Flow ⁴	0.70 to 0.90	%	
Water Absorption			
24 hr	0.090	%	ASTM D570

Saturation, 23°C	0.50	%	ISO 62
Equilibrium, 23°C, 50% RH	0.15	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	109		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ⁵	9750	MPa	ASTM D638
--	8500	MPa	ISO 527-2/1
Tensile Strength			
Yield ⁶	97.0	MPa	ASTM D638
Yield	105	MPa	ISO 527-2/5
Break ⁷	91.0	MPa	ASTM D638
Break	3.00	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁸	3.0	%	ASTM D638
Yield	3.0	%	ISO 527-2/5
Break ⁹	4.0	%	ASTM D638
Break	110	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ¹⁰	5380	MPa	ASTM D790
-- ¹¹	7750	MPa	ISO 178
Flexural Stress			
--	154	MPa	ISO 178
Yield, 50.0 mm Span ¹²	150	MPa	ASTM D790
Break, 50.0 mm Span ¹³	138	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ¹⁴ (23°C)	9.0	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	110	J/m	ASTM D256
23°C	170	J/m	ASTM D256
-30°C ¹⁵	6.0	kJ/m ²	ISO 180/1A
23°C ¹⁶	10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact (23°C)	640	J/m	ASTM D4812
Instrumented Dart Impact			ASTM D3763
23°C, Energy at Peak Load	5.00	J	
23°C, Total Energy	17.0	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 6.40 mm	204	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	163	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	149	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹⁷	155	°C	ISO 75-2/Af

Vicat Softening Temperature			
--	153	°C	ASTM D1525 ¹⁸
--	148	°C	ISO 306/B50
--	150	°C	ISO 306/B120
CLTE			
Flow : -40 to 40°C	2.7E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Flow : 60 to 138°C	2.0E-5	cm/cm/°C	ASTM E831
Transverse : -40 to 40°C	1.1E-4	cm/cm/°C	ASTM E831, ISO 11359-2
RTI Elec	140	°C	UL 746
RTI Imp	130	°C	UL 746
RTI Str	140	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	4.8E+15	ohms · cm	ASTM D257
Dielectric Strength			ASTM D149
1.60 mm, in Oil	27	kV/mm	
3.20 mm, in Air	20	kV/mm	
Dielectric Constant			ASTM D150
100 Hz	4.00		
1 MHz	4.00		
Dissipation Factor			ASTM D150
100 Hz	3.0E-3		
1 MHz	0.020		
Arc Resistance ¹⁹	PLC 5		ASTM D495
Comparative Tracking Index (CTI)	PLC 2		UL 746
High Amp Arc Ignition (HAI)	PLC 3		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 1		UL 746
Hot-wire Ignition (HWI)	PLC 1		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm)	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	110	°C	
Drying Time	4.0 to 6.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	50 to 80	%	
Rear Temperature	249 to 271	°C	
Middle Temperature	254 to 277	°C	
Front Temperature	260 to 282	°C	
Nozzle Temperature	254 to 277	°C	
Processing (Melt) Temp	260 to 282	°C	
Mold Temperature	65.6 to 93.3	°C	
Back Pressure	0.345 to 0.552	MPa	

Screw Speed	50 to 80	rpm
Vent Depth	0.013 to 0.020	mm
NOTE		
1.	0.75 to 2.3 mm	
2.	2.3 to 4.6 mm	
3.	0.75 to 2.3 mm	
4.	2.3 to 4.6 mm	
5.	5.0 mm/min	
6.	Type I, 5.0 mm/min	
7.	Type I, 5.0 mm/min	
8.	Type I, 5.0 mm/min	
9.	Type I, 5.0 mm/min	
10.	1.3 mm/min	
11.	2.0 mm/min	
12.	1.3 mm/min	
13.	1.3 mm/min	
14.	80*10*4 sp=62mm	
15.	80*10*4	
16.	80*10*4	
17.	80*10*4 mm	
18.	Rate B (120°C/h), Loading 2 (50 N)	
19.	Tungsten Electrode	

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