XENOY™ FR RESIN ENH2900

DESCRIPTION

XENOY ENH2900 compound is based on Polycarbonate / Polybutylene Terephthalate (PC/PBT) blend. Added features of this grade include: Non-Chlorinated, Non-Brominated Flame Retardant, Good Flow, Impact Modified and Improved Chemical Resistance.

GENERAL INFORMATION	
Features	Flame Retardant, Chemical Resistance, High Flow, Non Cl/Br flame retardant, Impact resistant
Fillers	Unreinforced
Polymer Types	Polycarbonate + PBT (PC+PBT)
Processing Techniques	Injection Molding

INDUSTRY	SUB INDUSTRY
Building and Construction	Building Component
Consumer	Personal Accessory
Electrical and Electronics	Mobile Phone - Computer - Tablets
Industrial	Electrical

TYPICAL PROPERTY VALUES

Revision 20260417

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL [1]			
Tensile Stress, yld, Type I, 50 mm/min	63	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	42	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	4	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	65	%	ASTM D638
Tensile Modulus, 50 mm/min	2480	MPa	ASTM D638
Flexural Strength, 1.3 mm/min, 50 mm span	89	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2240	MPa	ASTM D790
Tensile Stress, yield, 50 mm/min	67	MPa	ISO 527
Tensile Stress, break, 50 mm/min	44	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.2	%	ISO 527
Tensile Strain, break, 50 mm/min	56	%	ISO 527
Tensile Modulus, 1 mm/min	2500	MPa	ISO 527
Flexural Strength, 2 mm/min	95	MPa	ISO 178
Flexural Modulus, 2 mm/min	2500	MPa	ISO 178
Flexural Stress at 3.5% strain, 2 mm/min	82	MPa	ISO 178
IMPACT [1]			
Izod Impact, notched, 23°C	550	J/m	ASTM D256
Izod Impact, notched 80*10*4 +23°C	6.7	kJ/m²	ISO 180/1A
Izod Impact, unnotched 80*10*4 +23°C	137	kJ/m²	ISO 180/1U
Instrumented Dart Impact Total Energy, 23°C	65	J	ASTM D3763
Multi-Axial Instrumented Impact Energy @ peak, 23°C	91	J	ISO 6603-2

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Multi-Axial Instrumented Impact Total Energy, 23°C	124	J	ISO 6603-2
THERMAL [1]			
HDT, 1.82 MPa, 3.2mm, unannealed	78	°C	ASTM D648
HDT 1.8 MPa, 80*10*4mm, Cut	82	°C	ISO 75-1&2
Vicat Softening Temp, Rate B/50	102	°C	ASTM D1525
PHYSICAL [1]			
Specific Gravity	1.2	-	ASTM D792
Melt Flow Rate			
266°C/5.0 kgf	26	g/10 min	ASTM D1238
Mold Shrinkage, flow, 3.2 mm [2]	0.5 – 0.8	%	SABIC method
ELECTRICAL [1]			
Dielectric Constant			
1.1 GHz	2.85	-	SABIC method
1.9 GHz	2.86	-	SABIC method
5 GHz	2.81	-	SABIC method
10 GHz	2.817	-	SABIC method
Dissipation Factor			
1.1 GHz	0.00696	-	SABIC method
1.9 GHz	0.00676	-	SABIC method
5 GHz	0.00817	-	SABIC method
10 GHz	0.00778	-	SABIC method
FLAME CHARACTERISTICS [3]			
UL Yellow Card Link	E207780-100801552	-	-
UL Recognized, 94-5VB Flame Class Rating	≥2.5	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	≥1.5	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating	≥1.1	mm	UL 94
UL Recognized, 94HB Flame Class Rating	0.4	mm	UL 94
INJECTION MOLDING [4]			
Drying Temperature	80 – 90	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.04	%	
Melt Temperature	245 – 275	°C	
Nozzle Temperature	245 – 275	°C	
Front - Zone 3 Temperature	245 – 275	°C	
Middle - Zone 2 Temperature	220 – 265	°C	
Rear - Zone 1 Temperature	220 – 255	°C	
Mold Temperature	60 – 80	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	40 – 70	rpm	
Shot to Cylinder Size	30 – 80	%	
Vent Depth	0.038 – 0.076	mm	

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(1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.

(2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(3) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

(4) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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