XENOY™ RESIN 1105

REGION ASIA

DESCRIPTION

PBT/PC blend, injection molding grade, non-reinforced, impact modified, excellent toughness at low temperatures, very good paintability

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	48	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	47	MPa	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	45	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	46	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4.2	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	120	%	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	4.1	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	110	%	ASTM D 638
Tensile Modulus, 50 mm/min	2010	MPa	ASTM D 638
Tensile Modulus, 5 mm/min	1980	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	76	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	74	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	1900	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	52	MPa	ISO 527
Tensile Stress, break, 50 mm/min	50	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.5	%	ISO 527
Tensile Strain, break, 50 mm/min	116	%	ISO 527
Tensile Modulus, 1 mm/min	2070	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	78	MPa	ISO 178
Flexural Strain, break, 2 mm/min	7.3	%	ISO 178
Flexural Modulus, 2 mm/min	2010	MPa	ISO 178
Hardness, Shore D	79	-	ISO 868
IMPACT			
Izod Impact, notched, 23°C	755	J/m	ASTM D 256
Izod Impact, notched, 0°C	715	J/m	ASTM D 256
Izod Impact, notched, -10°C	695	J/m	ASTM D 256
Izod Impact, notched, -20°C	687	J/m	ASTM D 256
Izod Impact, notched, -30°C	489	J/m	ASTM D 256
Izod Impact, notched, -40°C	372	J/m	ASTM D 256
Izod Impact, notched 80*10*4 +23°C	63	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	51	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	34	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	62	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	47	kJ/m²	ISO 179/1eA
THERMAL			

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Vicat Softening Temp, Rate B/50	122	°C	ASTM D 1525
HDT, 0.45 MPa, 6.4 mm, unannealed	115	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	97	°C	ASTM D 648
Vicat Softening Temp, Rate B/50	122	°C	ISO 306
Vicat Softening Temp, Rate B/120	123	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	109	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	90	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Specific Volume	1.2	cm³/g	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.8 – 1	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.8 – 1	%	SABIC method
Melt Flow Rate, 250°C/5.0 kgf	16	g/10 min	ASTM D 1238
Density	1.2	g/cm³	ISO 1183
Melt Flow Rate, 250°C/5.0 kg	16	g/10 min	ISO 1133
INJECTION MOLDING			
Drying Temperature	110	°C	
Drying Time	4 – 6	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 275	°C	
Nozzle Temperature	255 – 270	°C	
Front - Zone 3 Temperature	255 – 275	°C	
Middle - Zone 2 Temperature	250 – 270	°C	
Rear - Zone 1 Temperature	245 – 265	°C	
Mold Temperature	65 – 90	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	50 – 80	rpm	
Shot to Cylinder Size	50 – 80	%	
Vent Depth	0.013 – 0.02	mm	

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