XYLEX™ 1105 resin

Polycarbonate + PBT

SABIC Innovative Plastics Asia Pacific

Message:

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

General Information			
Additive	Impact Modifier		
Features	Impact Modified Low Temperature Toughness Paintable		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.20	g/cm³	ASTM D792, ISO 1183
Specific Volume	1.20	cm³/g	ASTM D792
Flexural Strain at Break [1]	7.3	%	ISO 178
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	16	g/10 min	ASTM D1238, ISO 1133
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.80 to 1.0	%	
Across Flow : 3.20 mm	0.80 to 1.0	%	
Hardness	**Nominal Value**	**Unit**	**Test Method**
Shore Hardness (Shore D)	79		ISO 868
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
-- [2]	1990	MPa	ASTM D638
-- [3]	2020	MPa	ASTM D638
--	2070	MPa	ISO 527-2/1
Tensile Strength			
Yield [4]	45.2	MPa	ASTM D638
Yield [5]	48.8	MPa	ASTM D638
Yield	52.4	MPa	ISO 527-2/50
Break [6]	46.0	MPa	ASTM D638
Break [7]	47.4	MPa	ASTM D638
Break	50.5	MPa	ISO 527-2/50
Tensile Elongation			
Yield [8]	4.1	%	ASTM D638
Yield [9]	4.2	%	ASTM D638
Yield	4.5	%	ISO 527-2/50
Break [10]	110	%	ASTM D638

Break [11]	120	%	ASTM D638
Break	120	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span [12]	1900	MPa	ASTM D790
-- [13]	2020	MPa	ISO 178
Flexural Stress			
--	78.9	MPa	ISO 178
Yield, 50.0 mm Span [14]	76.1	MPa	ASTM D790
Break, 50.0 mm Span [15]	74.7	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [16]			ISO 179/1eA
-30°C	48	kJ/m²	
23°C	63	kJ/m²	
Notched Izod Impact			
-40°C	370	J/m	ASTM D256
-30°C	490	J/m	ASTM D256
-20°C	690	J/m	ASTM D256
-10°C	700	J/m	ASTM D256
0°C	720	J/m	ASTM D256
23°C	760	J/m	ASTM D256
-40°C [17]	35	kJ/m²	ISO 180/1A
-30°C [18]	51	kJ/m²	ISO 180/1A
23°C [19]	63	kJ/m²	ISO 180/1A
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 6.40 mm	115	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span [20]	109	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 6.40 mm	97.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span [21]	90.2	°C	ISO 75-2/Af
Vicat Softening Temperature	123	°C	ASTM D1525, ISO 306/B50, ISO 306/B120 [22]
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	243 to 266	°C	
Middle Temperature	249 to 271	°C	
Front Temperature	254 to 277	°C	
Nozzle Temperature	254 to 271	°C	
Processing (Melt) Temp	260 to 277	°C	

Mold Temperature	65.6 to 87.8	°C
Back Pressure	0.345 to 0.689	MPa
Screw Speed	50 to 80	rpm
Vent Depth	0.013 to 0.020	mm

NOTE	
1.	2 mm/min
2.	5.0 mm/min
3.	50 mm/min
4.	Type I, 5.0 mm/min
5.	Type I, 50 mm/min
6.	Type I, 5.0 mm/min
7.	Type I, 50 mm/min
8.	Type I, 5.0 mm/min
9.	Type I, 50 mm/min
10.	Type I, 5.0 mm/min
11.	Type I, 50 mm/min
12.	1.3 mm/min
13.	2.0 mm/min
14.	1.3 mm/min
15.	1.3 mm/min
16.	80*10*4 sp=62mm
17.	80*10*4
18.	80*10*4
19.	80*10*4
20.	80*10*4 mm
21.	80*10*4 mm
22.	Rate B (120°C/h), Loading 2 (50 N)

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China