

XENYO* X6800BM Resin

Polybutylene Terephthalate
SABIC Innovative Plastics Europe



Prospector

Product Description

Blow moldable, impact modified XENYO

General

Material Status	• Commercial: Active
Availability	• Europe
Additive	• Impact Modifier
Features	• Impact Modified
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Blow Molding • Extrusion Blow Molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.22	g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (265°C/2.16 kg)	4.9	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (265°C/5.0 kg)	9.50	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	2.9 to 3.4	%	ASTM D955
Water Absorption			ISO 62
Saturation, 23°C	0.10	%	
Equilibrium, 23°C, 50% RH	0.010	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ²	1690	MPa	ASTM D638
--	1710	MPa	ISO 527-2/1
Tensile Strength			
Yield ³	35.0	MPa	ASTM D638
Yield	31.7	MPa	ISO 527-2/50
Break ³	48.0	MPa	ASTM D638
Break	38.3	MPa	ISO 527-2/50
Tensile Elongation			
Yield ³	11	%	ASTM D638
Yield	14	%	ISO 527-2/50
Break ³	240	%	ASTM D638
Break	170	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁴	1650	MPa	ASTM D790
-- ⁵	1430	MPa	ISO 178
Flexural Strength			
-- ^{5, 6}	48.0	MPa	ISO 178
Yield, 50.0 mm Span ⁴	51.0	MPa	ASTM D790



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Friday, June 12, 2009

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	129	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	186	J/m	ASTM D256
23°C	802	J/m	ASTM D256
-30°C	22.4	kJ/m ²	ISO 180/1A
23°C	95.7	kJ/m ²	ISO 180/1A
Instrumented Dart Impact			ASTM D3763
23°C, Total Energy	54.8	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, Unannealed, 3.20 mm	47.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁷	46.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	115	°C	ASTM D1525 ⁸ ISO 306/B120 ⁸
--	118	°C	ISO 306/B50
CLTE			ASTM E831 ISO 11359-2
Flow: -40 to 40°C	0.000083	cm/cm/°C	
Transverse: -40 to 40°C	0.00017	cm/cm/°C	

Extrusion	Nominal Value	Unit
Drying Temperature	100 to 105	°C
Drying Time	3.0 to 4.0	hr
Suggested Max Moisture	0.010 to 0.030	%
Cylinder Zone 1 Temp.	250 to 260	°C
Cylinder Zone 2 Temp.	250 to 260	°C
Cylinder Zone 3 Temp.	255 to 260	°C
Cylinder Zone 4 Temp.	255 to 265	°C
Cylinder Zone 5 Temp.	255 to 265	°C
Adapter Temperature	255 to 265	°C
Die Temperature	255 to 265	°C

Extrusion Notes
Accumulator Temperature: 255 - 265 °C
Drying Time (Cumulative): 12 hrs
Extruder Feed Zone Temperature: 255 - 265 °C
Head - Zone 6 - Top Temperature: 255 - 265 °C
Head - Zone 7 - Bottom Temperature: 255 - 265 °C
Head - Zone 7 - Middle Temperature: 255 - 265 °C
Melt Temperature (Parison): 255 - 265 °C
Mold Temperature: 50 - 95 °C
Screw Speed: 15 - 50 rpm

Notes

¹ Typical properties: these are not to be construed as specifications.

² 5.0 mm/min

³ Type I, 50 mm/min

⁴ 1.3 mm/min

⁵ 2.0 mm/min

⁶ Yield

⁷ 80*10*4 mm

⁸ Rate B (120°C/h), Loading 2 (50 N)

