

XENOY* IQ1103U Resin

Polycarbonate + PBT
SABIC Innovative Plastics Europe



Prospector

Product Description

Xenoy* Resin iQ1103U - Environmentally responsible, sustainable, and low carbon footprint resin. Xenoy iQ1103U is an unreinforced, UV stable, impact modified PC+ iQ-PBT alloy with excellent low temperature impact and chemical resistance. Available in natural and colors.

General

Material Status	• Commercial: Active
Availability	• Europe
Additive	• Impact Modifier
Recycled Content	• Yes
Features	• Good Chemical Resistance • Impact Modified • Renewable Resource Content • Good UV Resistance • Low Temperature Impact Resistance
RoHS Compliance	• RoHS Compliant
Appearance	• Colors Available • Natural Color
Forms	• Pellets

Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.19	g/cm ³	ASTM D792
--	1.20	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	13	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	12.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.80 to 1.2	%	ASTM D955
Water Absorption			ISO 62
Saturation, 23°C	0.30	%	
Equilibrium, 23°C, 50% RH	0.080	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ²	2050	MPa	ASTM D638
--	1950	MPa	ISO 527-2/1
Tensile Strength			
Yield ³	45.0	MPa	ASTM D638
Yield	49.0	MPa	ISO 527-2/50
Break ³	46.0	MPa	ASTM D638
Break	47.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ³	4.0	%	ASTM D638
Yield	4.0	%	ISO 527-2/50
Break ³	140	%	ASTM D638
Break	150	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁴	2000	MPa	ASTM D790
-- ⁵	1920	MPa	ISO 178
Flexural Strength			
-- ^{5, 6}	70.0	MPa	ISO 178
Yield, 50.0 mm Span ⁴	74.0	MPa	ASTM D790



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Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	55	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	600	J/m	ASTM D256
23°C	650	J/m	ASTM D256
-30°C	47.0	kJ/m ²	ISO 180/1A
23°C	55.0	kJ/m ²	ISO 180/1A
Instrumented Dart Impact			ASTM D3763
23°C, Total Energy	50.0	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	99.0	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	75.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁷	76.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	117	°C	ASTM D1525 ⁸
			ISO 306/B120 ⁸
--	115	°C	ISO 306/B50
CLTE			
Flow: -40 to 150°C	0.000090	cm/cm/°C	ASTM E831
Flow: -30 to 80°C	0.000090	cm/cm/°C	ISO 11359-2
Transverse: -40 to 150°C	0.000095	cm/cm/°C	ASTM E831
Transverse: -30 to 80°C	0.000095	cm/cm/°C	ISO 11359-2
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	238 to 260	°C	
Middle Temperature	243 to 266	°C	
Front Temperature	249 to 271	°C	
Nozzle Temperature	249 to 266	°C	
Processing (Melt) Temp	254 to 277	°C	
Mold Temperature	37.8 to 87.8	°C	
Back Pressure	0.345 to 0.689	MPa	
Screw Speed	40 to 80	rpm	
Vent Depth	0.013 to 0.020	mm	

Notes

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

² 50 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)

