

# XENOY™ Resin CL100 - Americas

Polycarbonate + PBT

SABIC

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## Technical Data

### Product Description

XENOY CL100 is an unfilled, impact modified, UV-stabilized PC/PBT blend with excellent solvent resistance and good low-temperature ductility. It has a proven track record in unpainted exterior automotive applications. ISO1043: PC+PBT-I.

### General

Material Status	• Commercial: Active
UL Yellow Card <sup>1</sup>	• E121562-102281750
Search for UL Yellow Card	• SABIC • XENOY™ Resin
Availability	• Latin America • North America
Additive	• Impact Modifier • UV Stabilizer
Features	• Ductile • Impact Modified • Solvent Resistant
Uses	• Appliances • Construction Applications • Automotive Applications • Electrical/Electronic Applications • Automotive Exterior Parts • Electronic Displays • Automotive Interior Parts • Lenses • Lighting Applications • Medical/Healthcare Applications
Processing Method	• Injection Molding
Also Available In	• Asia Pacific

### Physical

	Nominal Value Unit	Test Method
Density / Specific Gravity	1.22 g/cm <sup>3</sup>	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (250°C/5.0 kg)	14 g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	13 cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.70 to 1.0 %	Internal Method
Water Absorption		ISO 62
Saturation, 23°C	0.50 %	
Equilibrium, 23°C, 50% RH	0.15 %	

### Mechanical

	Nominal Value Unit	Test Method
Tensile Modulus		
-- <sup>3</sup>	2200 MPa	ASTM D638
--	2150 MPa	ISO 527-2/1
Tensile Strength		
Yield <sup>4</sup>	56.0 MPa	ASTM D638
Yield	55.0 MPa	ISO 527-2/50
Break <sup>4</sup>	55.0 MPa	ASTM D638
Break	56.0 MPa	ISO 527-2/50
Tensile Elongation		
Yield <sup>4</sup>	5.0 %	ASTM D638
Yield	5.0 %	ISO 527-2/50
Break <sup>4</sup>	50 %	ASTM D638
Break	50 %	ISO 527-2/50
Flexural Modulus		
50.0 mm Span <sup>5</sup>	2050 MPa	ASTM D790
-- <sup>6</sup>	2050 MPa	ISO 178
Flexural Stress		
-- <sup>6,7</sup>	80.0 MPa	ISO 178
Yield, 50.0 mm Span <sup>5</sup>	85.0 MPa	ASTM D790
Taber Abrasion Resistance		Internal Method
1000 Cycles, 1000 g, CS-17 Wheel	30.0 mg	



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Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength <sup>8</sup>		ISO 179/1eA
-30°C	20 kJ/m <sup>2</sup>	
23°C	55 kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength <sup>8</sup>		ISO 179/1eU
-30°C	No Break	
23°C	No Break	
Notched Izod Impact		
-40°C	160 J/m	ASTM D256
-30°C	170 J/m	ASTM D256
0°C	600 J/m	ASTM D256
23°C	700 J/m	ASTM D256
-30°C <sup>9</sup>	20 kJ/m <sup>2</sup>	ISO 180/1A
0°C <sup>9</sup>	45 kJ/m <sup>2</sup>	ISO 180/1A
23°C <sup>9</sup>	50 kJ/m <sup>2</sup>	ISO 180/1A
Unnotched Izod Impact Strength <sup>9</sup>		ISO 180/1U
-30°C	No Break	
23°C	No Break	
Instrumented Dart Impact		ASTM D3763
23°C, Total Energy	50.0 J	
<b>Hardness</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Ball Indentation Hardness (H 358/30)	96.0 MPa	ISO 2039-1
<b>Thermal</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Heat Deflection Temperature		
0.45 MPa, Unannealed, 4.00 mm, 64.0 mm Span <sup>9</sup>	110 °C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	90.0 °C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm, 100 mm Span <sup>10</sup>	90.0 °C	ISO 75-2/Ae
1.8 MPa, Unannealed, 4.00 mm, 64.0 mm Span <sup>9</sup>	90.0 °C	ISO 75-2/Af
Vicat Softening Temperature		
--	125 °C	ASTM D1525 <sup>11</sup> ISO 306/B50 <sup>11</sup>
--	160 °C	ISO 306/A50
--	127 °C	ISO 306/B120
CLTE		
Flow : -40 to 40°C	9.0E-5 cm/cm/°C	ASTM E831
Flow : 23 to 80°C	9.0E-5 cm/cm/°C	ISO 11359-2
Transverse : -40 to 40°C	9.0E-5 cm/cm/°C	ASTM E831
Transverse : 23 to 80°C	9.0E-5 cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.18 W/m/K	ISO 8302
<b>Electrical</b>	<b>Nominal Value Unit</b>	<b>Test Method</b>
Surface Resistivity	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	> 1.0E+14 ohms·cm	IEC 60093
Electric Strength		IEC 60243-1
1.00 mm <sup>12</sup>	18 kV/mm	
3.20 mm, in Oil	17 kV/mm	
Relative Permittivity		IEC 60250
50 Hz	3.30	
60 Hz	3.30	
1 MHz	3.30	
Dissipation Factor		IEC 60250
50 Hz	2.0E-3	
60 Hz	2.0E-3	
1 MHz	0.020	



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Flammability	Nominal Value Unit	Test Method
Flame Rating (1.5 mm)	HB	UL 94

Injection	Nominal Value Unit
Drying Temperature	90 to 100 °C
Drying Time	2.0 to 4.0 hr
Suggested Max Moisture	0.020 %
Hopper Temperature	40 to 60 °C
Rear Temperature	230 to 250 °C
Middle Temperature	240 to 265 °C
Front Temperature	250 to 270 °C
Nozzle Temperature	250 to 265 °C
Processing (Melt) Temp	255 to 270 °C
Mold Temperature	60 to 80 °C

## Notes

<sup>1</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

<sup>2</sup> Typical properties: these are not to be construed as specifications.

<sup>3</sup> 5.0 mm/min

<sup>4</sup> Type I, 50 mm/min

<sup>5</sup> 1.3 mm/min

<sup>6</sup> 2.0 mm/min

<sup>7</sup> at Yield

<sup>8</sup> 80\*10\*4 sp=62mm

<sup>9</sup> 80\*10\*4 mm

<sup>10</sup> 120\*10\*4 mm

<sup>11</sup> Rate A (50°C/h), Loading 2 (50 N)

<sup>12</sup> Shorttime



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### Where to Buy

#### Supplier

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Web: <http://www.sabic.com/>

#### Distributor

##### 3Polymer (Guangzhou) Chemical Technology Co., Ltd.

Telephone: +86-20-3466-7988

Web: <http://3polymer.com>

Availability: China

##### Hisun Chemical (HK) Limited

Telephone: +86-20-8732-0686

Web: <http://www.hisunchemical.com>

Availability: Asia Pacific

##### Nexeo Plastics

Telephone: 833-446-3936

Web: <https://www.nexeoplastics.com/>

Availability: North America

