



# XENOY™ RESIN 5720U

REGION ASIA

## DESCRIPTION

Unfilled PBT+PC alloy. Outstanding low temperature impact/chemical resistance. UV stabilized version of XENOY

## TYPICAL PROPERTY VALUES

Revision 20190702

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 50 mm/min	47	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	48	MPa	ASTM D638
Tensile Stress, yld, Type I, 5 mm/min	44	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	50	MPa	ASTM D638
Tensile Stress, yld, Type I, 10 mm/min	45	MPa	SABIC - Japan Method
Tensile Stress, brk, Type I, 10 mm/min	47	MPa	SABIC - Japan Method
Tensile Strain, yld, Type I, 50 mm/min	4	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	116.6	%	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	4.6	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	122.4	%	ASTM D638
Tensile Strain, yld, Type I, 10 mm/min	4.6	%	SABIC - Japan Method
Tensile Strain, brk, Type I, 10 mm/min	109.5	%	SABIC - Japan Method
Tensile Modulus, 50 mm/min	1810	MPa	ASTM D638
Tensile Modulus, 5 mm/min	1830	MPa	ASTM D638
Tensile Modulus, 10 mm/min	1830	MPa	SABIC - Japan Method
Flexural Stress, yld, 1.3 mm/min, 50 mm span	70	MPa	ASTM D790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	69	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	1660	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	44	MPa	ISO 527
Tensile Stress, break, 5 mm/min	43	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	47	MPa	ISO 527
Tensile Stress, break, 50 mm/min	43	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	4.1	%	ISO 527
Tensile Strain, break, 5 mm/min	106.8	%	ISO 527
Tensile Strain, yield, 50 mm/min	4.6	%	ISO 527
Tensile Strain, break, 50 mm/min	115.3	%	ISO 527
Tensile Modulus, 1 mm/min	1790	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	71	MPa	ISO 178
Flexural Modulus, 2 mm/min	1860	MPa	ISO 178
<b>IMPACT</b>			
Izod Impact, notched, 23°C	722	J/m	ASTM D256
Izod Impact, notched, 0°C	691	J/m	ASTM D256
Izod Impact, notched, -10°C	663	J/m	ASTM D256
Izod Impact, notched, -20°C	695	J/m	ASTM D256
Izod Impact, notched, -30°C	647	J/m	ASTM D256



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Izod Impact, notched, -40°C	598	J/m	ASTM D256
Instrumented Dart Impact Energy @ peak, 23°C	44	J	ASTM D3763
Instrumented Impact, Energy @ peak, -20°C	41	J	ASTM D3763
Instrumented Dart Impact Energy @ peak, -30°C	49	J	ASTM D3763
Instrumented Impact Energy @ peak, -40°C	49	J	ASTM D3763
Instrumented Dart Impact Total Energy, 23°C	54	J	ASTM D3763
Instrumented Impact Total Energy, -20°C	53	J	ASTM D3763
Instrumented Dart Impact Total Energy, -30°C	61	J	ASTM D3763
Instrumented Impact Total Energy, -40°C	59	J	ASTM D3763
Izod Impact, notched 80*10*4 +23°C	55	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 0°C	55	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	52	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	50	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	48	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	46	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	55	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	47	kJ/m <sup>2</sup>	ISO 179/1eA
<b>THERMAL</b>			
Vicat Softening Temp, Rate B/50	119	°C	ASTM D1525
HDT, 0.45 MPa, 3.2 mm, unannealed	108	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	83	°C	ASTM D648
HDT, 0.45 MPa, 6.4 mm, unannealed	117	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	95	°C	ASTM D648
CTE, -40°C to 95°C, flow	9.75E-05	1/°C	ASTM E831
CTE, -40°C to 95°C, xflow	1.E-04	1/°C	ASTM E831
CTE, -30°C to 80°C, flow	9.75E-05	1/°C	ISO 11359-2
CTE, -30°C to 80°C, xflow	1.E-04	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	119	°C	ISO 306
Vicat Softening Temp, Rate B/120	122	°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	87	°C	ISO 75/Af
<b>PHYSICAL</b>			
Specific Gravity	1.17	-	ASTM D792
Specific Volume	0.85	cm <sup>3</sup> /g	ASTM D792
Density	1.17	g/cm <sup>3</sup>	ASTM D792
Mold Shrinkage, flow, 3.2 mm	1 – 1.2	%	SABIC method
Melt Flow Rate, 250°C/2.16 kgf	3.8	g/10 min	ASTM D1238
Melt Flow Rate, 250°C/5.0 kgf	11.4	g/10 min	ASTM D1238
Melt Flow Rate, 265°C/2.16kgf	6	g/10 min	ASTM D1238
Melt Flow Rate, 266°C/5.0 kgf	19.7	g/10 min	ASTM D1238
Density	1.17	g/cm <sup>3</sup>	ISO 1183
Water Absorption, (23°C/saturated)	0.28	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.08	%	ISO 62
Melt Flow Rate, 250°C/2.16 kg	3	g/10 min	ISO 1133
Melt Flow Rate, 250°C/5.0 kg	11	g/10 min	ISO 1133
Melt Volume Rate, MVR at 250°C/2.16 kg	3	cm <sup>3</sup> /10 min	ISO 1133



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Volume Rate, MVR at 250°C/5.0 kg	10	cm <sup>3</sup> /10 min	ISO 1133
Melt Volume Rate, MVR at 265°C/2.16 kg	6	cm <sup>3</sup> /10 min	ISO 1133
Melt Volume Rate, MVR at 265°C/5.0 kg	18	cm <sup>3</sup> /10 min	ISO 1133
<b>FLAME CHARACTERISTICS</b>			
UL Yellow Card Link	<a href="#">E207780-100980305</a>	-	-
<b>INJECTION MOLDING</b>			
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	

#### DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NON-INFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.