

XENOY™ Resin 6620U Americas: COMMERCIAL

PBT+PC, Unfilled, Impact Modified, UV stabilized. Outstanding low temperature impact performance and chemical resistance.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	440	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	330	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4.2	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	145	%	ASTM D 638
Tensile Modulus, 50 mm/min	18100	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	640	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	18100	kgf/cm²	ASTM D 790
Tensile Stress, yield, 50 mm/min	41	MPa	ISO 527
Tensile Stress, break, 50 mm/min	31	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3.9	%	ISO 527
Tensile Strain, break, 50 mm/min	19.4	%	ISO 527
Tensile Modulus, 1 mm/min	1830	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	60	MPa	ISO 178
Flexural Modulus, 2 mm/min	1690	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	163	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	91	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	68	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	574	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	54	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	51	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	72	kJ/m²	ISO 179/1eA

Source GMD, last updated:

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⁽²⁾ Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.



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THERMAL			
Vicat Softening Temp, Rate B/50	123	°C	ASTM D 1525
HDT, 0.45 MPa, 6.4 mm, unannealed	98	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	60	°C	ASTM D 648
CTE, -40°C to 40°C, flow	9.89E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.05E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	9.89E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.05E-04	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	118	°C	ISO 306
Vicat Softening Temp, Rate B/120	121	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	50	°C	ISO 75/Af
Relative Temp Index, Elec	75	°C	UL 746B
Relative Temp Index, Mech w/impact	75	°C	UL 746B
Relative Temp Index, Mech w/o impact	75	°C	UL 746B
PHYSICAL			
Specific Gravity	1.2	-	ASTM D 792
Specific Volume	0.83	cm³/g	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	1.6 - 1.8	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	1.6 - 1.8	%	SABIC Method
Melt Flow Rate, 266°C/5.0 kgf	21.9	g/10 min	ASTM D 1238
Density	1.21	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.14	%	ISO 62
Melt Volume Rate, MVR at 265°C/5.0 kg	17	cm ³ /10 min	ISO 1133
ELECTRICAL			
Arc Resistance, Tungsten (PLC)	5	PLC Code	ASTM D 495
Hot Wire Ignition (PLC)	3	PLC Code	UL 746A

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TYPICAL PROPERTIES ¹	TYPICAL VAL	UE Unit	Standard
ELECTRICAL			
High Voltage Arc Track Rate {PLC}	1	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A
Comparative Tracking Index (UL) {PLC}	0	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating (3)	1.47	mm	UL 94

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ROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	105 - 115	°C
Drying Time	2 - 4	hrs
Drying Time (Cumulative)	6	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	250 - 270	°C
Nozzle Temperature	250 - 270	°C
Front - Zone 3 Temperature	250 - 265	°C
Middle - Zone 2 Temperature	240 - 255	°C
Rear - Zone 1 Temperature	230 - 245	°C
Mold Temperature	40 - 80	°C
Back Pressure	0.2 - 0.3	MPa
Shot to Cylinder Size	50 - 80	%
Vent Depth	0.013 - 0.02	mm

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