



XENOY™ Resin XL1339
Americas: COMMERCIAL

Data generated in BOZ labs. High heat grade for nonchemical resistance required applications.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	500	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	500	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	110	%	ASTM D 638
Tensile Modulus, 50 mm/min	21300	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	960	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	21300	kgf/cm ²	ASTM D 790
Taber Abrasion, CS-17, 1 kg	16	mg/1000cy	ASTM D 1044
Tensile Stress, yield, 50 mm/min	55	MPa	ISO 527
Tensile Stress, break, 50 mm/min	40	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5	%	ISO 527
Tensile Strain, break, 50 mm/min	70	%	ISO 527
Flexural Stress, yield, 2 mm/min	80	MPa	ISO 178
Flexural Modulus, 2 mm/min	2200	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	71	cm-kgf/cm	ASTM D 256
Izod Impact, notched, 0°C	68	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -20°C	60	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	25	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -40°C	22	cm-kgf/cm	ASTM D 256
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	NB	kJ/m ²	ISO 180/1U



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IMPACT			
Izod Impact, notched 80*10*4 +23°C	40	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	38	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	35	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	25	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	15	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	45	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	35	kJ/m ²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m ²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m ²	ISO 179/1eU
THERMAL			
CTE, -30°C to 30°C, flow	7.56E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	7.92E-05	1/°C	ASTM D 696
Thermal Conductivity	0.18	W/m-°C	ASTM C 177
Vicat Softening Temp, Rate A/50	140	°C	ISO 306
Vicat Softening Temp, Rate B/50	130	°C	ISO 306
Vicat Softening Temp, Rate B/120	135	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	125	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	105	°C	ISO 75/Ae
PHYSICAL			
Specific Gravity	1.22	-	ASTM D 792
Water Absorption, 24 hours	0.1	%	ASTM D 570
Water Absorption, equilibrium, 23C	0.7	%	ASTM D 570
Water Absorption, 50% RH, equilib	0.2	%	ASTM D 570
Mold Shrinkage on Tensile Bar, flow (2) (5)	0.5 - 0.8	%	SABIC Method
Mold Shrinkage on Tensile Bar, xflow (2) (5)	0.5 - 0.8	%	SABIC Method



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PHYSICAL			
Melt Volume Rate, MVR at 265°C/1.2 kg	4	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	>1.E+14	Ohm-cm	ASTM D 257
Surface Resistivity	>1.E+15	Ohm	ASTM D 257
Dielectric Strength, in oil, 3.2 mm	16.9	kV/mm	ASTM D 149
Relative Permittivity, 50/60 Hz	3.3	-	ASTM D 150
Relative Permittivity, 1 MHz	3.1	-	ASTM D 150
Dissipation Factor, 50/60 Hz	0.002	-	ASTM D 150
Dissipation Factor, 1 MHz	0.02	-	ASTM D 150



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
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