

Xenoy* Resin XL1339

Americas: DEVELOPMENTAL

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

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	49	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	49	MPa	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	2090	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	94	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2090	MPa	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	Value	Unit	Standard
Izod Impact, notched, 23°C	699	J/m	ASTM D 256
Izod Impact, notched, 0°C	672	J/m	ASTM D 256
Izod Impact, notched, -20°C	598	J/m	ASTM D 256
Izod Impact, notched, -30°C	245	J/m	ASTM D 256
Izod Impact, notched, -40°C	224	J/m	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
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	Value	Unit	Standard
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	Value	Unit	Standard
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)	0.5 - 0.8	%	SABIC Method
Mold Shrinkage on Tensile Bar, xflow (2)	0.5 - 0.8	%	SABIC Method
Poisson's Ratio	0.4	-	ASTM D 638
Melt Volume Rate, MVR at 265°C/1.2 kg	4	cm ³ /10 min	ISO 1133
ELECTRICAL	Value	Unit	Standard
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

Source GMD, last updated:01/05/2000

Processing

Parameter	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

Source GMD, last updated:01/05/2000

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(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.

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