

## Geloy\* Resin XP2003

Americas: COMMERCIAL

ASA+PVC alloy. Excellent weatherability.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
	Value	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, yld, Type I, 50 mm/min	38	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	30	%	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	48	MPa	ASTM D 790
Flexural Stress, yld, 2.6 mm/min, 100 mm span	51	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	1930	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	1580	MPa	ASTM D 790
Hardness, Rockwell R	102	-	ASTM D 785
<b>IMPACT</b>			
	Value	Unit	Standard
Izod Impact, notched, 23°C	961	J/m	ASTM D 256
Izod Impact, notched, -30°C	106	J/m	ASTM D 256
Gardner, 23°C	33	J	ASTM D 3029
Gardner, -30°C	10	J	ASTM D 3029
Instrumented Impact Total Energy, 23°C	56	J	ASTM D 3763
Instrumented Impact Total Energy, -30°C	28	J	ASTM D 3763
<b>THERMAL</b>			
	Value	Unit	Standard
HDT, 0.45 MPa, 6.4 mm, unannealed	82	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	73	°C	ASTM D 648
CTE, -40°C to 95°C, flow	8.46E-05	1/°C	ASTM E 831
Relative Temp Index, Elec	50	°C	UL 746B
Relative Temp Index, Mech w/impact	50	°C	UL 746B
Relative Temp Index, Mech w/o impact	50	°C	UL 746B
<b>PHYSICAL</b>			
	Value	Unit	Standard
Specific Gravity	1.21	-	ASTM D 792
Water Absorption, 24 hours	0.11	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.3 - 0.5	%	SABIC Method
Melt Flow Rate, 200°C/3.8 kgf	4.5	g/10 min	ASTM D 1238
<b>OPTICAL</b>			
	Value	Unit	Standard
Gloss, untextured, 60 degrees	90	-	ASTM D 523
<b>ELECTRICAL</b>			
	Value	Unit	Standard
Volume Resistivity	7.2E+14	Ohm-cm	ASTM D 257
Surface Resistivity	1.2E+15	Ohm	ASTM D 257
Dielectric Strength, in air, 3.2 mm	18.6	kV/mm	ASTM D 149
Dielectric Strength, in oil, 1.6 mm	32	kV/mm	ASTM D 149
Relative Permittivity, 100 Hz	3.54	-	ASTM D 150
Dissipation Factor, 100 Hz	0.0031	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	0	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	2	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A

Comparative Tracking Index (UL) {PLC}	3	PLC Code	UL 746A
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Recognized, 94HB Flame Class Rating (3)	1.47	mm	UL 94
UL Recognized, 94V-1 Flame Class Rating (3)	3.3	mm	UL 94
UL Recognized, 94-5VA Rating (3)	3.3	mm	UL 94

Source GMD, last updated:01/05/2000

## Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	65 - 70	°C
Drying Time	2 - 3	hrs
Drying Time (Cumulative)	3	hrs
Maximum Moisture Content	0.04	%
Melt Temperature	195 - 210	°C
Nozzle Temperature	190 - 205	°C
Front - Zone 3 Temperature	180 - 195	°C
Middle - Zone 2 Temperature	170 - 190	°C
Rear - Zone 1 Temperature	165 - 175	°C
Mold Temperature	25 - 60	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	30 - 80	rpm
Shot to Cylinder Size	40 - 80	%
Vent Depth	0.038 - 0.076	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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