

GELOY™ RESIN XP4034

REGION AMERICAS

DESCRIPTION

PC/ASA. Excellent weatherability.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	62	MPa	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	25	%	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	88	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	2510	MPa	ASTM D790
Hardness, Rockwell R	110	-	ASTM D785
Tensile Stress, yield, 50 mm/min	57	MPa	ISO 527
Tensile Stress, break, 50 mm/min	50	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.5	%	ISO 527
Tensile Strain, break, 50 mm/min	126	%	ISO 527
Tensile Modulus, 1 mm/min	2400	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	80	MPa	ISO 178
Flexural Modulus, 2 mm/min	2500	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	320	J/m	ASTM D256
Izod Impact, notched, -30°C	80	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	47	J	ASTM D3763
Instrumented Dart Impact Total Energy, -30°C	30	J	ASTM D3763
Izod Impact, notched 80*10*4 +23°C	33	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	32	kJ/m²	ISO 179/1eA
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	115	°C	ASTM D648
HDT, 1.82 MPa, 6.4 mm, unannealed	104	°C	ASTM D648
CTE, -20°C to 150°C, flow	7.2E-05	1/°C	ASTM E831
CTE, -20°C to 150°C, xflow	7.2E-05	1/°C	ASTM E831
Thermal Conductivity	0.25	W/m-°C	ASTM C177
Vicat Softening Temp, Rate B/50	113	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	116	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	98	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.15	-	ASTM D792
Water Absorption, (23°C/24hrs)	0.25	%	ASTM D570
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 220°C/10.0 kgf	5	g/10 min	ASTM D1238

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Flow Rate, 260°C/5.0 kgf	14	g/10 min	ASTM D1238
Melt Flow Rate, 280°C/3.8 kgf	24	g/10 min	ASTM D1238
OPTICAL			
Gloss, untextured, 60 degrees	94	-	ASTM D523
FLAME CHARACTERISTICS			
UL Yellow Card Link	E121562-220754	-	-
UL Recognized, 94HB Flame Class Rating	1.5	mm	UL 94
UV-light, water exposure/immersion	F2	-	UL 746C
INJECTION MOLDING			
Drying Temperature	95 – 105	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.04	%	
Melt Temperature	260 – 275	°C	
Nozzle Temperature	245 – 265	°C	
Front - Zone 3 Temperature	250 – 265	°C	
Middle - Zone 2 Temperature	245 – 260	°C	
Rear - Zone 1 Temperature	240 – 255	°C	
Mold Temperature	55 – 70	°C	
Back Pressure	0.3 – 1	MPa	
Screw Speed	30 – 80	rpm	
Shot to Cylinder Size	40 – 80	%	
Vent Depth	0.038 – 0.076	mm	
SHEET EXTRUSION			
Drying Temperature	90 – 100	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Minimum Moisture Content	0.04	%	
Melt Temperature	260 – 280	°C	
Barrel - Zone 1 Temperature	225 – 240	°C	
Barrel - Zone 2 Temperature	240 – 250	°C	
Barrel - Zone 3 Temperature	250 – 260	°C	
Barrel - Zone 4 Temperature	260 – 270	°C	
Adapter Temperature	260 – 270	°C	
Die Temperature	260 – 270	°C	
Roll Stack Temp - Top	100 – 120	°C	
Roll Stack Temp - Middle	95 – 110	°C	
Roll Stack Temp - Bottom	75 – 90	°C	