

GELOY™ RESIN CR7520

REGION AMERICAS

DESCRIPTION

ASA. Profile and Sheet. Excellent weatherability, good flow/aesthetics and high impact.

TYPICAL PROPERTY VALUES

Revision 20170816

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	41	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	34	MPa	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	40	%	ASTM D 638
Tensile Modulus, 50 mm/min	1790	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	58	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	1790	MPa	ASTM D 790
Hardness, Rockwell R	86	-	ASTM D 785
Tensile Stress, yield, 50 mm/min	39	MPa	ISO 527
Tensile Stress, break, 50 mm/min	29	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3.1	%	ISO 527
Tensile Strain, break, 50 mm/min	44	%	ISO 527
Tensile Modulus, 1 mm/min	2000	MPa	ISO 527
Flexural Modulus, 2 mm/min	2000	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	320	J/m	ASTM D 256
Izod Impact, notched, -30°C	58	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	35	J	ASTM D 3763
Instrumented Impact Total Energy, -30°C	20	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	19	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	4	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	17	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	99	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	87	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	76	°C	ASTM D 648
HDT, 1.82 MPa, annealed	95	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	90	°C	ASTM D 648



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HDT, 1.82 MPa, 6.4 mm, unannealed	79	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.64E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	9.18E-05	1/°C	ASTM E 831
CTE, -30°C to 0°C, flow	8.46E-05	1/°C	ASTM E 831
CTE, 0°C to 100°C, flow	9.E-05	1/°C	ASTM E 831
Vicat Softening Temp, Rate B/50	90	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	91	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	80	°C	ISO 75/Af
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
PHYSICAL			
Specific Gravity	1.06	-	ASTM D 792
Water Absorption, equilibrium, 23C	0.55	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm (5)	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 220°C/10.0 kgf	7	g/10 min	ASTM D 1238
Melt Flow Rate, 260°C/5.0 kgf	13	g/10 min	ASTM D 1238
Melt Flow Rate, 280°C/3.8 kgf	19.5	g/10 min	ASTM D 1238
OPTICAL			
Gloss, untextured, 60 degrees	95	-	ASTM D 523
ELECTRICAL			
Surface Resistivity	> 1.E+15	Ohm	ASTM D 257
Dielectric Strength, in oil, 3.2 mm	15.9	kV/mm	ASTM D 149
Relative Permittivity, 50/60 Hz	5.2	-	ASTM D 150
Relative Permittivity, 1 MHz	3.21	-	ASTM D 150
Dissipation Factor, 50/60 Hz	0.15	-	ASTM D 150
Dissipation Factor, 1 MHz	0.026	-	ASTM D 150
Hot Wire Ignition {PLC}	3	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
UV-light, water exposure/immersion	F2	-	UL 746C
INJECTION MOLDING			
Drying Temperature	80 – 90	°C	
Drying Time	3 – 6	hrs	
Drying Time (Cumulative)	12	hrs	
Maximum Moisture Content	0.04	%	



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Temperature	240 – 270	°C	
Nozzle Temperature	240 – 270	°C	
Front - Zone 3 Temperature	240 – 270	°C	
Middle - Zone 2 Temperature	225 – 260	°C	
Rear - Zone 1 Temperature	220 – 250	°C	
Mold Temperature	55 – 75	°C	
Back Pressure	0.7 – 1.4	MPa	
Screw Speed	30 – 80	rpm	
Shot to Cylinder Size	40 – 80	%	
Vent Depth	0.038 – 0.076	mm	

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

It is the customer's responsibility to inspect and test our product(s) in order to satisfy itself as to the suitability of the product(s) for its and its customers particular purposes. The customer is responsible for the appropriate, safe and legal use, processing and handling of all product(s) purchased from us.

Nothing herein is intended to be nor shall it constitute a warranty whatsoever, in particular, warranty of merchantability or fitness for a particular purpose.

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