



GELOY™ Resin CR7520
Americas: COMMERCIAL

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

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	420	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	350	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	40	%	ASTM D 638
Tensile Modulus, 50 mm/min	18200	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	590	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	18200	kgf/cm ²	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	32	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	5	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	356	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, -30°C	203	cm-kgf	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



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THERMAL			
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
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



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ELECTRICAL			
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



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	80 - 90	°C
Drying Time	3 - 6	hrs
Drying Time (Cumulative)	12	hrs
Maximum Moisture Content	0.04	%
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