



GELOY™ Resin CR3020

Americas: COMMERCIAL

ASA, excellent weatherable, extrusion grade

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	390	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	300	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	3.5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	38	%	ASTM D 638
Tensile Modulus, 5 mm/min	18700	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	580	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	18900	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 50 mm/min	39	MPa	ISO 527
Tensile Stress, break, 50 mm/min	31	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3.4	%	ISO 527
Tensile Strain, break, 50 mm/min	23	%	ISO 527
Tensile Modulus, 1 mm/min	1800	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	56	MPa	ISO 178
Flexural Modulus, 2 mm/min	1800	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	0	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	0	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	45	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	25	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	3	kJ/m ²	ISO 180/1A
THERMAL			
Vicat Softening Temp, Rate B/50	100	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	74	°C	ASTM D 648

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(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.

(5) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.

(6) Needs hard coat to consistently pass 60 sec Vertical Burn.

Source GMD, last updated:

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TYPICAL PROPERTIES¹	TYPICAL VALUE	Unit	Standard
THERMAL			
CTE, -40°C to 40°C, flow	1.4E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	2.E-04	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	100	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	77	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.07	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.55 - 0.63	%	SABIC Method
Melt Flow Rate, 220°C/10.0 kgf	5	g/10 min	ASTM D 1238
Density	1.07	g/cm³	ISO 1183
Melt Flow Rate, 220°C/10.0 kg	6	g/10 min	ISO 1133

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Profile Extrusion		
Drying Temperature	80 - 90	°C
Drying Time	3 - 6	hrs
Drying Time (Cumulative)	12	hrs
Minimum Moisture Content	0.02	%
Melt Temperature	225 - 255	°C
Barrel - Zone 1 Temperature	205 - 215	°C
Barrel - Zone 2 Temperature	215 - 230	°C
Barrel - Zone 3 Temperature	220 - 240	°C
Barrel - Zone 4 Temperature	225 - 245	°C
Adapter Temperature	225 - 245	°C
Die Temperature	225 - 245	°C
Calibrator Temperature	15 - 65	°C

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