



GELOY™ Resin CR7010

Americas: OBSOLETE

ASA copolymer for sheet extrusion applications. High impact, weatherable capstock.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	430	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	360	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	3.2	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	40	%	ASTM D 638
Tensile Modulus, 50 mm/min	19600	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	610	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	19600	kgf/cm ²	ASTM D 790
Hardness, Rockwell R	91	-	ASTM D 785
IMPACT			
Izod Impact, notched, 23°C	49	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	10	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	247	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, -30°C	172	cm-kgf	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	102	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	90	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	76	°C	ASTM D 648
HDT, 1.82 MPa, annealed	97	°C	ASTM D 648
HDT, 0.45 MPa, 6.4 mm, unannealed	96	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	85	°C	ASTM D 648
CTE, -40°C to 40°C, flow	9.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.08E-04	1/°C	ASTM E 831
Relative Temp Index, Elec	50	°C	UL 746B

(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.

(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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THERMAL			
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
Mold Shrinkage, flow, 3.2 mm (5)	0.4 - 0.5	%	SABIC Method
Melt Flow Rate, 220°C/10.0 kgf	3.7	g/10 min	ASTM D 1238
Melt Flow Rate, 260°C/5.0 kgf	3.5	g/10 min	ASTM D 1238
OPTICAL			
Gloss, untextured, 60 degrees	95	-	ASTM D 523
ELECTRICAL			
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)	1.49	mm	UL 94
UV-light, water exposure/immersion	F2	-	UL 746C

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- Barrel temperatures should be banked TO 150°C (300°F)

PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Sheet Extrusion		
Drying Temperature	80 - 90	°C
Drying Time	3 - 4	hrs
Drying Time (Cumulative)	12	hrs
Minimum Moisture Content	0.04	%
Melt Temperature	220 - 245	°C
Barrel - Zone 1 Temperature	180 - 225	°C
Barrel - Zone 2 Temperature	190 - 230	°C
Barrel - Zone 3 Temperature	205 - 240	°C
Barrel - Zone 4 Temperature	210 - 245	°C
Adapter Temperature	210 - 245	°C
Die Temperature	210 - 245	°C
Roll Stack Temp - Top	70 - 100	°C
Roll Stack Temp - Middle	70 - 95	°C
Roll Stack Temp - Bottom	65 - 90	°C

- Purge using HIPS or Ultra HDPE.

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