



GELOY™ Resin XP4045LG

Americas: COMMERCIAL

PC/ASA. Excellent weatherability, low gloss.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yield, 50 mm/min	60	MPa	ISO 527
Tensile Stress, break, 50 mm/min	45	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5.2	%	ISO 527
Tensile Strain, break, 50 mm/min	46.7	%	ISO 527
Tensile Modulus, 1 mm/min	2320	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	93	MPa	ISO 178
Flexural Modulus, 2 mm/min	2270	MPa	ISO 178
IMPACT			
Instrumented Impact Energy @ peak, 23°C	458	cm-kgf	ASTM D 3763
Instrumented Impact Energy @ peak, -30	152	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, 23°C	547	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, -30°C	173	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	14	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	8	kJ/m ²	ISO 180/1A
Charpy -40°C, V-notch Edgew 80*10*3 sp=62mm	12	kJ/m ²	ISO 179/1eA
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	25	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	14	kJ/m ²	ISO 179/1eA
THERMAL			
CTE, -30°C to 80°C, flow	6.7E-05	1/°C	ISO 11359-2
CTE, -30°C to 80°C, xflow	7.6E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	126	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	125	°C	ISO 75/Bf

(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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TYPICAL PROPERTIES¹	TYPICAL VALUE	Unit	Standard
THERMAL			
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	103	°C	ISO 75/Af
PHYSICAL			
Mold Shrinkage, flow, 3.2 mm (5)	0.6 - 0.9	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.6 - 0.9	%	SABIC Method
Density	1.19	g/cm³	ISO 1183
Melt Volume Rate, MVR at 260°C/5.0 kg	28	cm³/10 min	ISO 1133

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	95 - 105	°C
Drying Time	3 - 4	hrs
Maximum Moisture Content	0.04	%
Melt Temperature	265 - 285	°C
Nozzle Temperature	260 - 275	°C
Front - Zone 3 Temperature	240 - 270	°C
Middle - Zone 2 Temperature	250 - 275	°C
Rear - Zone 1 Temperature	260 - 280	°C
Mold Temperature	50 - 80	°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

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