GELOY™ Resin XTWE270M

Americas: COMMERCIAL

ASA, extrusion grade, low gloss, excellent weatherability.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	360	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	320	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	3.4	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	38	%	ASTM D 638
Tensile Modulus, 5 mm/min	19400	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	570	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	18600	kgf/cm²	ASTM D 790
Tensile Stress, yield, 50 mm/min	36	MPa	ISO 527
Tensile Stress, break, 50 mm/min	26	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3.4	%	ISO 527
Tensile Strain, break, 50 mm/min	28	%	ISO 527
Tensile Modulus, 1 mm/min	1790	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	56	MPa	ISO 178
Flexural Modulus, 2 mm/min	1870	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	19	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	7	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	285	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	13	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	7	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	12	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	85	°C	ASTM D 1525

(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:

PLEASE CONTACT YOUR LOCAL SALES OFFICE FOR AVAILABILITY IN YOUR AREA.

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THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	69	°C	ASTM D 648
CTE, -40°C to 40°C, flow	9.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.09E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.16E-04	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	82	°C	ISO 306
Vicat Softening Temp, Rate B/120	85	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	71	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.09	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.3 - 0.7	%	SABIC Method
Melt Flow Rate, 220°C/10.0 kgf	9.7	g/10 min	ASTM D 1238
Density	1.09	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.8	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Volume Rate, MVR at 220°C/5.0 kg	2	cm³/10 min	ISO 1133

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Profile Extrusion		
Drying Temperature	85 - 95	°C
Drying Time	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	190 - 210	°C
Barrel - Zone 1 Temperature	180 - 200	°C
Barrel - Zone 2 Temperature	180 - 200	°C
Barrel - Zone 3 Temperature	180 - 205	°C
Barrel - Zone 4 Temperature	180 - 205	°C
Hopper Temperature	60 - 80	°C
Adapter Temperature	180 - 205	°C
Die Temperature	185 - 205	°C
Calibrator Temperature	50 - 70	°C

• PLEASE NOTE: Processing condition recommended for profile extrusion over PVC substrate.
• PLEASE NOTE: Suggested drying conditions: 4 hours minimum at 5°C (40°F) dew point with dessicant dryer at 80°C (180°F).

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