GELOY™ Resin XTWE480

Asia Pacific: COMMERCIAL

Anti-scratch GELOY grade with excellent weatherability, high flow, and good surface quality. XTWE480 is available in various colours.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	500	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	360	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	3	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	21	%	ASTM D 638
Tensile Modulus, 50 mm/min	25100	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	710	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	21000	kgf/cm²	ASTM D 790
Tensile Stress, yield, 50 mm/min	50	MPa	ISO 527
Tensile Stress, break, 50 mm/min	38	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	3	%	ISO 527
Tensile Strain, break, 50 mm/min	25	%	ISO 527
Tensile Modulus, 1 mm/min	2300	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	70	MPa	ISO 178
Flexural Modulus, 2 mm/min	2410	MPa	ISO 178
Pencil Hardness test, 1kgf	F	-	ASTM D 3363
IMPACT			
Izod Impact, notched, 23°C	4	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	2	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	66	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	3	kJ/m²	ISO 180/1A
THERMAL			
Vicat Softening Temp, Rate B/50	78	°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, 6.4 mm, unannealed	73	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.1E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.8E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	79	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	73	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.15	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.3 - 0.6	%	SABIC Method
Melt Flow Rate, 220°C/10.0 kgf	38	g/10 min	ASTM D 1238
Density	1.15	g/cm³	ISO 1183

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Profile Extrusion		
Drying Temperature	75 - 85	°C
Drying Time	4	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	200 - 230	°C
Barrel - Zone 1 Temperature	205 - 220	°C
Barrel - Zone 2 Temperature	210 - 225	°C
Barrel - Zone 3 Temperature	215 - 225	°C
Barrel - Zone 4 Temperature	215 - 225	°C
Hopper Temperature	60 - 80	°C
Adapter Temperature	200 - 225	°C
Die Temperature	210 - 225	°C
Calibrator Temperature	50 - 70	°C

•\0020PLEASE NOTE: Processing condition recommended for profile extrusion over PVC substrate.

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