GELOY™ Resin XTWM206

Americas: COMMERCIAL

ASA, Xtreme weatherability, high heat.

TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	460	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	370	kgf/cm²	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	430	kgf/cm²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	360	kgf/cm²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	2.7	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	26	%	ASTM D 638
Tensile Strain, yld, Type I, 5 mm/min	2.5	%	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	27	%	ASTM D 638
Tensile Modulus, 50 mm/min	24400	kgf/cm²	ASTM D 638
Tensile Modulus, 5 mm/min	24000	kgf/cm²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	750	kgf/cm²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	24900	kgf/cm²	ASTM D 790
Hardness, Rockwell R	100	-	ASTM D 785
Tensile Stress, yield, 50 mm/min	45	MPa	ISO 527
Tensile Stress, break, 50 mm/min	36	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	2.8	%	ISO 527
Tensile Strain, break, 50 mm/min	36	%	ISO 527
Tensile Modulus, 1 mm/min	2350	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	64	MPa	ISO 178
Flexural Modulus, 2 mm/min	2380	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	21	cm-kgf/cm	ASTM D 256

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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:

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

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IMPACT			
Izod Impact, notched, -30°C	3	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	367	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, -30°C	30	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	15	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	3	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	11	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	98	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	97	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	84	°C	ASTM D 648
CTE, -40°C to 40°C, flow	8.4E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	9.4E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	8.3E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.4E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	Pass85	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	95	°C	ISO 306
Vicat Softening Temp, Rate B/120	99	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	98	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	84	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.09	-	ASTM D 792
Mold Shrinkage on Tensile Bar, flow (2) (5)	0.4 - 0.7	%	SABIC Method
Mold Shrinkage, flow, 3.2 mm (5)	0.4 - 0.7	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.4 - 0.75	%	SABIC Method
Melt Flow Rate, 220°C/10.0 kgf	8.8	g/10 min	ASTM D 1238

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TYPICAL PROPERTIES[1]	TYPICAL VALUE	Unit	Standard
PHYSICAL			
Melt Flow Rate, 260°C/5.0 kgf	7.1	g/10 min	ASTM D 1238
Melt Flow Rate, 280°C/3.8 kgf	7.2	g/10 min	ASTM D 1238
Density	1.09	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.5	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Volume Rate, MVR at 260°C/5.0 kg	9	cm³/10 min	ISO 1133
OPTICAL			
Gloss, untextured, 60 degrees	93	-	ASTM D 523
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating (3)	1.5	mm	UL 94
UV-light, water exposure/immersion	F1	-	UL 746C

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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	85 - 90	°C
Drying Time	4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.04	%
Melt Temperature	240 - 270	°C
Nozzle Temperature	220 - 255	°C
Front - Zone 3 Temperature	230 - 260	°C
Middle - Zone 2 Temperature	220 - 255	°C
Rear - Zone 1 Temperature	215 - 250	°C
Mold Temperature	60 - 85	°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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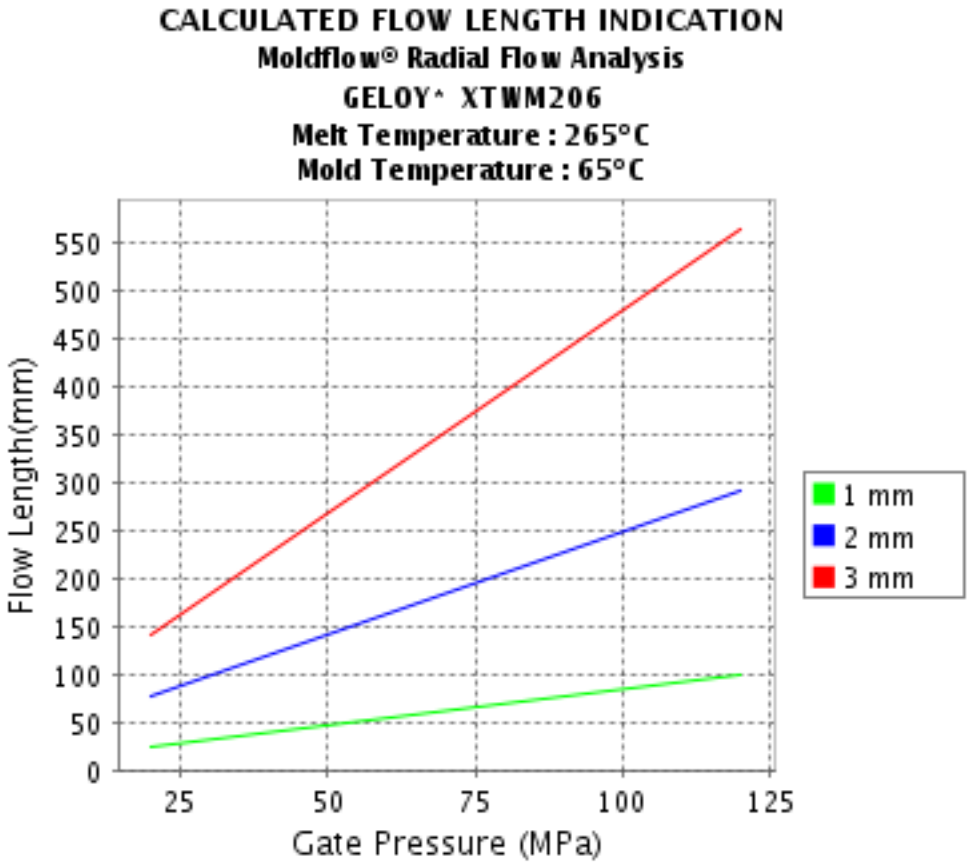

Note: Technical support is recommended if Gate Pressure is greater than 80 MPa. Contact your local representative.

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