

GELOY™ RESIN XTWM206

REGION AMERICAS

DESCRIPTION

ASA, Xtreme weatherability, high heat.

TYPICAL PROPERTY VALUES

Revision 20170816

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	46	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	37	MPa	ASTM D 638
Tensile Stress, yld, Type I, 5 mm/min	43	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	36	MPa	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	2400	MPa	ASTM D 638
Tensile Modulus, 5 mm/min	2360	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	74	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2450	MPa	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	210	J/m	ASTM D 256
Izod Impact, notched, -30°C	35	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	36	J	ASTM D 3763
Instrumented Impact Total Energy, -30°C	3	J	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



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Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	11	kJ/m ²	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
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/cm ³	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	cm ³ /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
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	



PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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	

DISCLAIMER

The information contained herein may include typical properties of our products or their typical performances when used in certain typical applications. Actual properties of our products, in particular when used in conjunction with any third party material(s) or for any non-typical applications, may differ from typical properties.

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