

GELOY* XTWM206 Resin

Acrylonitrile Styrene Acrylate
SABIC Innovative Plastics

Product Description

Next generation Gelay XTW ASA for high heat exterior applications. Outstanding weatherability and toughness.

General

Features	• Good Toughness	• Good Weather Resistance	• High Heat Resistance
Uses	• Outdoor Applications		
Forms	• Pellets		
Processing Method	• Injection Molding		

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.09	g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	8.8	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	9.60	cm ³ /10min	ISO 1133
Molding Shrinkage			ASTM D955
Flow	0.40 to 0.70	%	
Flow: 3.20 mm	0.40 to 0.70	%	
Across Flow: 3.20 mm	0.40 to 0.75	%	
Water Absorption			ISO 62
Saturation, 23°C	0.50	%	
Equilibrium, 23°C, 50% RH	0.20	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ²	2360	MPa	ASTM D638
--	2350	MPa	ISO 527-2/1
Tensile Strength			
Yield ³	43.0	MPa	ASTM D638
Yield ⁴	46.0	MPa	ASTM D638
Yield	45.8	MPa	ISO 527-2/50
Break ³	36.0	MPa	ASTM D638
Break ⁴	37.0	MPa	ASTM D638
Break	36.5	MPa	ISO 527-2/50
Tensile Elongation			
Yield ³	2.5	%	ASTM D638
Yield ⁴	2.7	%	ASTM D638
Yield	2.8	%	ISO 527-2/50
Break ³	27	%	ASTM D638
Break ⁴	26	%	ASTM D638
Break	36	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁵	2450	MPa	ASTM D790
-- ⁶	2380	MPa	ISO 178
Flexural Strength			
-- ^{6, 7}	64.0	MPa	ISO 178
Yield, 50.0 mm Span ⁵	74.0	MPa	ASTM D790



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Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	11	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	35.0	J/m	ASTM D256
23°C	210	J/m	ASTM D256
-30°C	3.00	kJ/m ²	ISO 180/1A
23°C	15.0	kJ/m ²	ISO 180/1A
Instrumented Dart Impact			ASTM D3763
23°C, Total Energy	36.0	J	

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	97.0	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ⁸	98.0	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	84.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ⁸	84.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	98.0	°C	ASTM D1525 ⁹
--	95.0	°C	ISO 306/B50
--	99.0	°C	ISO 306/B120
Ball Pressure Test (75°C)	Pass		IEC 60695-10-2
CLTE			
Flow: -40 to 40°C	0.000084	cm/cm/°C	ASTM E831
Flow: -40 to 40°C	0.000083	cm/cm/°C	ISO 11359-2
Transverse: -40 to 40°C	0.000094	cm/cm/°C	ASTM E831
			ISO 11359-2

Injection	Nominal Value	Unit
Drying Temperature	85.0 to 90.0	°C
Drying Time	4.0	hr
Drying Time, Maximum	8.0	hr
Suggested Max Moisture	0.040	%
Suggested Shot Size	40 to 80	%
Rear Temperature	215 to 250	°C
Middle Temperature	220 to 255	°C
Front Temperature	230 to 260	°C
Nozzle Temperature	220 to 255	°C
Processing (Melt) Temp	240 to 270	°C
Mold Temperature	60.0 to 85.0	°C
Back Pressure	0.300 to 1.00	MPa
Screw Speed	30 to 80	rpm
Vent Depth	0.038 to 0.076	mm

Notes

¹ Typical properties: these are not to be construed as specifications.

² 5.0 mm/min

³ Type I, 5.0 mm/min

⁴ Type I, 50 mm/min

⁵ 1.3 mm/min

⁶ 2.0 mm/min

⁷ Yield

⁸ 80*10*4 mm

⁹ Rate B (120°C/h), Loading 2 (50 N)

