

GELOY™ XTWM206 resin

Acrylonitrile Styrene Acrylate

SABIC Innovative Plastics

Message:

ASA, Xtreme weatherability, high heat.

General Information			
UL YellowCard	E121562-486714		
Features	Good weather resistance		
	Heat resistance, high		
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)			ASTM D1238
220°C/10.0 kg	8.8	g/10 min	ASTM D1238
260°C/5.0 kg	7.1	g/10 min	ASTM D1238
280°C/3.8 kg	7.2	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	9.60	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal method
Flow ¹	0.40 - 0.70	%	Internal method
Flow: 3.20mm	0.40 - 0.70	%	Internal method
Transverse flow: 3.20mm	0.40 - 0.75	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.50	%	ISO 62
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Outdoor Suitability	f1		UL 746C
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	100		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ²	2360	MPa	ASTM D638
-- ³	2400	MPa	ASTM D638
--	2350	MPa	ISO 527-2/1
Tensile Strength			
Yield ⁴	43.0	MPa	ASTM D638
Yield ⁵	46.0	MPa	ASTM D638
Yield	45.8	MPa	ISO 527-2/50
Fracture ⁶	36.0	MPa	ASTM D638

Fracture ⁷	37.0	MPa	ASTM D638
Fracture	36.5	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁸	2.5	%	ASTM D638
Yield ⁹	2.7	%	ASTM D638
Yield	2.8	%	ISO 527-2/50
Fracture ¹⁰	27	%	ASTM D638
Fracture ¹¹	26	%	ASTM D638
Fracture	36	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ¹²	2450	MPa	ASTM D790
-- ¹³	2380	MPa	ISO 178
Flexural Stress			
--	64.0	MPa	ISO 178
Yield, 50.0mm span ¹⁴	74.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ¹⁵ (23°C)	11	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	35	J/m	ASTM D256
23°C	210	J/m	ASTM D256
-30°C ¹⁶	3.0	kJ/m ²	ISO 180/1A
23°C ¹⁷	15	kJ/m ²	ISO 180/1A
Instrumented Dart Impact			ASTM D3763
-30°C, Total Energy	3.00	J	ASTM D3763
23°C, Total Energy	36.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	97.0	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span ¹⁸	98.0	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	84.0	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹⁹	84.0	°C	ISO 75-2/af
Vicat Softening Temperature			
--	98.0	°C	ASTM D1525 ²⁰
--	95.0	°C	ISO 306/B50
--	99.0	°C	ISO 306/B120
Ball Pressure Test (75°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			
Flow: -40 to 40°C	8.4E-5	cm/cm/°C	ASTM E831
Flow: -40 to 40°C	8.3E-5	cm/cm/°C	ISO 11359-2
Lateral: -40 to 40°C	9.4E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Flammability	Nominal Value		Test Method
Flame Rating (1.5 mm)	HB		UL 94

Optical	Nominal Value	Test Method
Gardner Gloss (60°, Untextured)	93	ASTM D523

Injection	Nominal Value	Unit
Drying Temperature	85 - 90	°C
Drying Time	4.0	hr
Drying Time, Maximum	8.0	hr
Suggested Max Moisture	0.040	%
Suggested Shot Size	40 - 80	%
Rear Temperature	215 - 250	°C
Middle Temperature	220 - 255	°C
Front Temperature	230 - 260	°C
Nozzle Temperature	220 - 255	°C
Processing (Melt) Temp	240 - 270	°C
Mold Temperature	60 - 85	°C
Back Pressure	0.300 - 1.00	MPa
Screw Speed	30 - 80	rpm
Vent Depth	0.038 - 0.076	mm

NOTE	
1.	Tensile Bar
2.	5.0 mm/min
3.	50 mm/min
4.	Type 1, 5.0 mm/min
5.	Type 1, 50mm/min
6.	Type 1, 5.0 mm/min
7.	Type 1, 50mm/min
8.	Type 1, 5.0 mm/min
9.	Type 1, 50mm/min
10.	Type 1, 5.0 mm/min
11.	Type 1, 50mm/min
12.	1.3 mm/min
13.	2.0 mm/min
14.	1.3 mm/min
15.	80*10*4 sp=62mm
16.	80*10*4
17.	80*10*4
18.	80*10*4 mm
19.	80*10*4 mm
20.	标准 B (120°C/h), 载荷2 (50N)

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