

GELOY™ EXGY0071 resin

Acrylonitrile Styrene Acrylate

SABIC Innovative Plastics

Message:

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

General Information			
Features	Good Toughness		
	Good Weather Resistance		
	High Heat Resistance		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.11	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	12	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	13.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal Method
Flow : 3.20 mm	0.40 to 0.70	%	
Across Flow : 3.20 mm	0.40 to 0.70	%	
Water Absorption			ISO 62
Saturation, 23°C	0.50	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2460	MPa	ASTM D638
--	2450	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	43.0	MPa	ASTM D638
Yield ³	46.0	MPa	ASTM D638
Yield	45.8	MPa	ISO 527-2/50
Break ⁴	36.0	MPa	ASTM D638
Break ⁵	37.0	MPa	ASTM D638
Break	36.5	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁶	2.5	%	ASTM D638
Yield ⁷	2.7	%	ASTM D638
Yield	2.8	%	ISO 527-2/50
Break ⁸	18	%	ASTM D638
Break ⁹	17	%	ASTM D638

Break	24	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ¹⁰	2570	MPa	ASTM D790
-- ¹¹	2500	MPa	ISO 178
Flexural Stress			
--	64.0	MPa	ISO 178
Yield, 50.0 mm Span ¹²	74.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ¹³ (23°C)	8.0	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	23	J/m	ASTM D256
23°C	140	J/m	ASTM D256
-30°C ¹⁴	2.5	kJ/m ²	ISO 180/1A
23°C ¹⁵	10	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	18.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	97.0	°C	ASTM D648
1.8 MPa, Unannealed, 3.20 mm	84.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹⁶	84.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	98.0	°C	ASTM D1525 ¹⁷
--	95.0	°C	ISO 306/B50
--	99.0	°C	ISO 306/B120
CLTE			
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
Transverse : -40 to 40°C	9.4E-5	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
NOTE		
1.	5.0 mm/min	
2.	Type I, 5.0 mm/min	
3.	Type I, 50 mm/min	
4.	Type I, 5.0 mm/min	
5.	Type I, 50 mm/min	
6.	Type I, 5.0 mm/min	
7.	Type I, 50 mm/min	
8.	Type I, 5.0 mm/min	
9.	Type I, 50 mm/min	
10.	1.3 mm/min	
11.	2.0 mm/min	
12.	1.3 mm/min	
13.	80*10*4 sp=62mm	
14.	80*10*4	
15.	80*10*4	
16.	80*10*4 mm	
17.	Rate B (120°C/h), Loading 2 (50 N)	

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