

GELOY™ EXGY0070 resin

Acrylonitrile Styrene Acrylate

SABIC Innovative Plastics

Message:

Next generation ASA optimized for outstanding weatherability, colorability and higher heat applications requiring UV exposure resistance.

General Information			
Features	Good UV resistance		
	Good coloring		
	Good weather resistance		
	Heat resistance, high		
RoHS Compliance	RoHS compliance		
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 (1.50 mm)	HB	UL 94
Optical	Nominal Value	Test Method
Gardner Gloss (60°, Untextured)	93	ASTM D523
Injection	Nominal Value	Unit
Drying Temperature	85.0 - 90.0	°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	60.0 - 85.0	°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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