

GELOY™ CR8510 resin

Acrylonitrile Styrene Acrylate

SABIC Innovative Plastics

Message:

ASA with outstanding UV exposure performance for both exterior and interior applications. F1 Rated.

General Information			
Features	Good UV resistance		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.08	g/cm ³	ASTM D792
--	1.07	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	6.3	g/10 min	ASTM D1238
260°C/5.0 kg	11	g/10 min	ASTM D1238
280°C/3.8 kg	7.8	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR)			ISO 1133
220°C/10.0 kg	6.00	cm ³ /10min	ISO 1133
260°C/5.0 kg	10.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 - 0.80	%	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)	93		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	1970	MPa	ASTM D638
-- ²	2080	MPa	ASTM D638
--	2040	MPa	ISO 527-2/1
Tensile Strength			
Yield ³	40.0	MPa	ASTM D638
Yield	43.0	MPa	ISO 527-2/50
Fracture ⁴	33.0	MPa	ASTM D638
Fracture	19.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁵	3.6	%	ASTM D638

Yield	3.3	%	ISO 527-2/50
Fracture ⁶	60	%	ASTM D638
Fracture	35	%	ISO 527-2/50
Flexural Modulus			
50.0mm span ⁷	2170	MPa	ASTM D790
-- ⁸	2060	MPa	ISO 178
Flexural Stress			
--	64.0	MPa	ISO 178
Yield, 50.0mm span ⁹	68.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ¹⁰ (23°C)	14	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	60	J/m	ASTM D256
23°C	400	J/m	ASTM D256
-30°C ¹¹	6.0	kJ/m ²	ISO 180/1A
23°C ¹²	15	kJ/m ²	ISO 180/1A
Instrumented Dart Impact			ASTM D3763
-30°C, Total Energy	4.00	J	ASTM D3763
23°C, Total Energy	30.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	103	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span ¹³	103	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	90.0	°C	ASTM D648
1.8 MPa, unannealed, 100 mm span ¹⁴	88.0	°C	ISO 75-2/Ae
1.8 MPa, unannealed, 64.0mm span ¹⁵	89.0	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	98.0	°C	ASTM D1525 ¹⁶
--	102	°C	ISO 306/B50
--	105	°C	ISO 306/B120
Ball Pressure Test ¹⁷ (98°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ASTM E831, ISO 11359-2
Flow: -40 to 40°C	8.4E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: -40 to 40°C	9.5E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Dissipation Factor			ASTM D150
100 kHz	0.018		ASTM D150
1 MHz	0.026		ASTM D150
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm)	HB		UL 94
Optical	Nominal Value		Test Method

Gardner Gloss (60°, Untextured)	94	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.	5.0 mm/min	
2.	50 mm/min	
3.	Type 1, 50mm/min	
4.	Type 1, 50mm/min	
5.	Type 1, 50mm/min	
6.	Type 1, 50mm/min	
7.	1.3 mm/min	
8.	2.0 mm/min	
9.	1.3 mm/min	
10.	80*10*4 sp=62mm	
11.	80*10*4	
12.	80*10*4	
13.	80*10*4 mm	
14.	120*10*4 mm	
15.	80*10*4 mm	
16.	标准 B (120°C/h), 载荷2 (50N)	
17.	Approximate maximum	

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