

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			
UL YellowCard	E207780-100054232		
Features	Good UV resistance		
Uses	Outdoor application		
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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