

GELOY™ CR7520 resin

Acrylonitrile Styrene Acrylate

SABIC Innovative Plastics

Message:

General purpose ASA. Excellent weatherability, good flow/aesthetics and high impact. Rated F2 by UL.

General Information			
UL YellowCard	E121562-220670		
Features	General Purpose		
	Good Flow		
	Good Weather Resistance		
	High Impact Resistance		
	Pleasing Surface Appearance		
Uses	General Purpose		
Processing Method	Injection Molding		
Multi-Point Data	Compressive Stress vs. Strain (ASTM D695)		
	Specific Heat vs. Temperature (ASTM D3417)		
	Viscosity vs. Shear Rate (ASTM D3835)		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.06	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	7.0	g/10 min	
260°C/5.0 kg	13	g/10 min	
280°C/3.8 kg	20	g/10 min	
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.70	%	Internal Method
Water Absorption (Equilibrium, 23°C)	0.55	%	ASTM D570
Outdoor Suitability	f2		UL 746C
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	86		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	1790	MPa	ASTM D638
--	2000	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	41.4	MPa	ASTM D638
Yield	39.0	MPa	ISO 527-2/50
Break ³	34.5	MPa	ASTM D638
Break	29.0	MPa	ISO 527-2/50

Tensile Strain			
Yield	3.1	%	ISO 527-2/50
Break ⁴	40	%	ASTM D638
Break	44	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁵	1790	MPa	ASTM D790
-- ⁶	2000	MPa	ISO 178
Flexural Strength ⁷ (Yield, 50.0 mm Span)	58.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁸ (23°C)	17	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	59	J/m	ASTM D256
23°C	320	J/m	ASTM D256
-30°C ⁹	4.5	kJ/m ²	ISO 180/1A
23°C ¹⁰	19	kJ/m ²	ISO 180/1A
Instrumented Dart Impact			ASTM D3763
-30°C, Total Energy	20.0	J	
23°C, Total Energy	35.0	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	87.8	°C	ASTM D648
0.45 MPa, Unannealed, 6.40 mm	90.6	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹¹	91.0	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	76.7	°C	ASTM D648
1.8 MPa, Unannealed, 6.40 mm	79.4	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹²	80.0	°C	ISO 75-2/Af
1.8 MPa, Annealed	95.6	°C	ASTM D648
Vicat Softening Temperature			
--	99.4	°C	ASTM D1525 ¹³
--	90.0	°C	ISO 306/B50
CLTE			ASTM E831
Flow : -30 to 0°C	8.5E-5	cm/cm/°C	
Flow : -40 to 40°C	8.6E-5	cm/cm/°C	
Flow : 0 to 100°C	9.0E-5	cm/cm/°C	
Transverse : -40 to 40°C	9.2E-5	cm/cm/°C	
RTI Elec	50.0	°C	UL 746
RTI Imp	50.0	°C	UL 746
RTI Str	50.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	ASTM D257
Dielectric Strength (3.20 mm, in Oil)	16	kV/mm	ASTM D149
Dielectric Constant			ASTM D150

50 Hz	5.20		
60 Hz	5.20		
1 MHz	3.21		
Dissipation Factor			ASTM D150
50 Hz	0.15		
60 Hz	0.15		
1 MHz	0.026		
Comparative Tracking Index (CTI)	PLC 0		UL 746
High Amp Arc Ignition (HAI)	PLC 0		UL 746
Hot-wire Ignition (HWI)	PLC 3		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.47 mm)	HB		UL 94
Optical	Nominal Value		Test Method
Gardner Gloss (60°, Untextured)	95		ASTM D523
Injection	Nominal Value	Unit	
Drying Temperature	82.2 to 87.8	°C	
Drying Time	3.0 to 6.0	hr	
Drying Time, Maximum	12	hr	
Suggested Max Moisture	0.040	%	
Suggested Shot Size	40 to 80	%	
Rear Temperature	221 to 249	°C	
Middle Temperature	227 to 260	°C	
Front Temperature	238 to 271	°C	
Nozzle Temperature	238 to 271	°C	
Processing (Melt) Temp	238 to 271	°C	
Mold Temperature	54.4 to 76.7	°C	
Back Pressure	0.689 to 1.38	MPa	
Screw Speed	30 to 80	rpm	
Vent Depth	0.038 to 0.076	mm	
NOTE			
1.	50 mm/min		
2.	Type I, 50 mm/min		
3.	Type I, 50 mm/min		
4.	Type I, 50 mm/min		
5.	1.3 mm/min		
6.	2.0 mm/min		
7.	1.3 mm/min		
8.	80*10*4 sp=62mm		
9.	80*10*4		
10.	80*10*4		
11.	80*10*4 mm		
12.	80*10*4 mm		

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