

GELOY™ CR7520 resin

Acrylonitrile Styrene Acrylate

SABIC Innovative Plastics

Message:

ASA copolymer. Automotive grilles and exteriors. Excellent weatherability, good flow/aesthetics and high impact. Rated f2 by UL.

General Information			
UL YellowCard	E207780-100072245		
Features	Copolymer		
	Impact resistance, high		
	Good liquidity		
	Good weather resistance		
Uses	Application in Automobile Field		
	Automotive exterior parts		
Processing Method	Injection molding		
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	ASTM D1238
260°C/5.0 kg	13	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.50 - 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
Tensile Strength ²			ASTM D638
Yield	41.4	MPa	ASTM D638
Fracture	34.5	MPa	ASTM D638
Tensile Elongation ³ (Break)	40	%	ASTM D638
Flexural Modulus ⁴ (50.0 mm Span)	1790	MPa	ASTM D790
Flexural Strength ⁵ (Yield, 50.0 mm Span)	58.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			ASTM D256
-30°C	59	J/m	ASTM D256
23°C	320	J/m	ASTM D256

Instrumented Dart Impact (23°C, Total Energy)	25.4	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.20mm	87.8	°C	ASTM D648
0.45 MPa, unannealed, 6.40mm	90.6	°C	ASTM D648
1.8 MPa, unannealed, 3.20mm	76.7	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	79.4	°C	ASTM D648
1.8 MPa, annealed	95.6	°C	ASTM D648
Vicat Softening Temperature	99.4	°C	ASTM D1525 ⁶
Linear thermal expansion coefficient			ASTM E831
Flow: -30 to 0°C	8.5E-5	cm/cm/°C	ASTM E831
Flow: -40 to 40°C	8.6E-5	cm/cm/°C	ASTM E831
Flow: 0 to 100°C	9.0E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	9.2E-5	cm/cm/°C	ASTM E831
RTI Elec	50.0	°C	UL 746
RTI Imp	50.0	°C	UL 746
RTI	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		ASTM D150
60 Hz	5.20		ASTM D150
1 MHz	3.21		ASTM D150
Dissipation Factor			ASTM D150
50 Hz	0.15		ASTM D150
60 Hz	0.15		ASTM D150
1 MHz	0.026		ASTM D150
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 - 87.8	°C	
Drying Time	3.0 - 6.0	hr	
Drying Time, Maximum	12	hr	
Suggested Max Moisture	0.040	%	
Suggested Shot Size	40 - 80	%	

Rear Temperature	221 - 249	°C
Middle Temperature	227 - 260	°C
Front Temperature	238 - 271	°C
Nozzle Temperature	238 - 271	°C
Processing (Melt) Temp	238 - 271	°C
Mold Temperature	54.4 - 76.7	°C
Back Pressure	0.689 - 1.38	MPa
Screw Speed	30 - 80	rpm
Vent Depth	0.038 - 0.076	mm

NOTE

- | | |
|----|---------------------------|
| 1. | 50 mm/min |
| 2. | Type 1, 50mm/min |
| 3. | Type 1, 50mm/min |
| 4. | 1.3 mm/min |
| 5. | 1.3 mm/min |
| 6. | 标准 B (120°C/h), 载荷2 (50N) |

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