

GELOY™ CR7020 resin

Acrylonitrile Styrene Acrylate
SABIC Innovative Plastics

Message:

GELOY CR7020 is a profile extrusion and co-extrusion grade, blend of ASA/SAN. In co-extrusion it can be used over CYCOLAC, PVC or other compatible polymers.

General Information			
UL YellowCard	E45329-236515		
RoHS Compliance	RoHS compliance		
Processing Method	Profile extrusion molding		
Physical	Nominal Value	Unit	Test Method
Density	1.06	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR)			ISO 1133
220°C/10.0 kg	7.00	cm ³ /10min	ISO 1133
260°C/5.0 kg	8.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.40 - 0.70	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.55	%	ISO 62
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	95		ISO 2039-2
Ball Indentation Hardness (H 358/30)	70.0	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1900	MPa	ISO 527-2/1
Tensile Stress			
Yield	30.0	MPa	ISO 527-2/5
Yield	35.0	MPa	ISO 527-2/50
Fracture	25.0	MPa	ISO 527-2/5
Fracture	30.0	MPa	ISO 527-2/50
Tensile Strain			
Yield	2.5	%	ISO 527-2/5
Yield	2.7	%	ISO 527-2/50
Fracture	15	%	ISO 527-2/5
Fracture	10	%	ISO 527-2/50
Flexural Modulus ²	1900	MPa	ISO 178
Flexural Stress	50.0	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	155	mg	Internal method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ³			ISO 179/1eA

-30°C	6.0	kJ/m ²	ISO 179/1eA
23°C	14	kJ/m ²	ISO 179/1eA
Notched Izod Impact ⁴			ISO 180/1A
-30°C	6.0	kJ/m ²	ISO 180/1A
23°C	15	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁵			
0.45 MPa, unannealed, 100 mm span	85.0	°C	ISO 75-2/Be
1.8 MPa, unannealed, 100 mm span	75.0	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	85.0	°C	ISO 306/B50
--	90.0	°C	ISO 306/B120
Ball Pressure Test (75°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 60°C	9.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 60°C	1.0E-4	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.21	W/m/K	ISO 8302
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	IEC 60093
Volume Resistivity	> 1.0E+14	ohms · cm	IEC 60093
Dielectric Strength (3.20 mm, in Oil)	16	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	5.20		IEC 60250
60 Hz	5.20		IEC 60250
1 MHz	3.21		IEC 60250
Dissipation Factor			IEC 60250
50 Hz	0.15		IEC 60250
60 Hz	0.15		IEC 60250
1 MHz	0.026		IEC 60250
Comparative Tracking Index			IEC 60112
--	600	V	IEC 60112
Solution B	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.00 mm	HB		UL 94
3.00 mm	HB		UL 94
Glow Wire Flammability Index (3.20 mm)	750	°C	IEC 60695-2-12
Oxygen Index	19	%	ISO 4589-2
Extrusion	Nominal Value	Unit	

Drying Temperature	85.0 - 95.0	°C
Drying Time	2.0 - 4.0	hr
Suggested Max Moisture	0.050	%
Hopper Temperature	60.0 - 80.0	°C
Cylinder Zone 1 Temp.	180 - 210	°C
Cylinder Zone 2 Temp.	190 - 220	°C
Cylinder Zone 3 Temp.	200 - 230	°C
Cylinder Zone 4 Temp.	200 - 230	°C
Adapter Temperature	200 - 230	°C
Melt Temperature	210 - 240	°C
Die Temperature	200 - 230	°C
Calibration Temp, First	50.0 - 70.0	°C

NOTE

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|----|-----------------|
| 1. | Tensile Bar |
| 2. | 2.0 mm/min |
| 3. | 80*10*4 sp=62mm |
| 4. | 80*10*4 |
| 5. | 120*10*4 mm |

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