

GELOY™ RESIN CR7020

REGION EUROPE

DESCRIPTION

ASA. Profile and sheet. Excellent weatherability, good flow/aesthetics and high impact.

TYPICAL PROPERTY VALUES

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Taber Abrasion, CS-17, 1 kg	155	mg/1000cy	SABIC method
Tensile Stress, yield, 5 mm/min	30	MPa	ISO 527
Tensile Stress, break, 5 mm/min	25	MPa	ISO 527
Tensile Stress, yield, 50 mm/min	35	MPa	ISO 527
Tensile Stress, break, 50 mm/min	30	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	2.5	%	ISO 527
Tensile Strain, break, 5 mm/min	15	%	ISO 527
Tensile Strain, yield, 50 mm/min	2.7	%	ISO 527
Tensile Strain, break, 50 mm/min	10	%	ISO 527
Tensile Modulus, 1 mm/min	1900	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	50	MPa	ISO 178
Flexural Modulus, 2 mm/min	1900	MPa	ISO 178
Hardness, H358/30	70	MPa	ISO 2039-1
Hardness, Rockwell R	95	-	ISO 2039-2
IMPACT			
Izod Impact, notched 80*10*4 +23°C	15	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	6	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	14	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	6	kJ/m ²	ISO 179/1eA
THERMAL			
Thermal Conductivity	0.21	W/m-°C	ISO 8302
CTE, 23°C to 60°C, flow	9.E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	1.E-04	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	85	°C	ISO 306
Vicat Softening Temp, Rate B/120	90	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	85	°C	ISO 75/Be

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	75	°C	ISO 75/Ae
Relative Temp Index, Elec	50	°C	UL 746B
Relative Temp Index, Mech w/impact	50	°C	UL 746B
Relative Temp Index, Mech w/o impact	50	°C	UL 746B
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow (2) (5)	0.4 – 0.7	%	SABIC method
Density	1.06	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.55	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.2	%	ISO 62
Melt Volume Rate, MVR at 220°C/10.0 kg	7	cm ³ /10 min	ISO 1133
Melt Volume Rate, MVR at 260°C/5.0 kg	8	cm ³ /10 min	ISO 1133
ELECTRICAL			
Volume Resistivity	> 1.E+14	Ohm-cm	IEC 60093
Surface Resistivity, ROA	> 1.E+15	Ohm	IEC 60093
Dielectric Strength, in oil, 3.2 mm	16	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	3.2	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.15	-	IEC 60250
Dissipation Factor, 1 MHz	0.026	-	IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Comparative Tracking Index, M	600	V	IEC 60112
Relative Permittivity, 50/60 Hz	5.2	-	IEC 60250
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating (3)	1	mm	UL 94
UL Recognized, 94HB Flame Class Rating 2nd value (3)	3	mm	UL 94
Glow Wire Flammability Index 750°C, passes at	3.2	mm	IEC 60695-2-12
Oxygen Index (LOI)	19	%	ISO 4589
PROFILE EXTRUSION			
Drying Temperature	85 – 95	°C	
Drying Time	2 – 4	hrs	
Maximum Moisture Content	0.05	%	
Melt Temperature	210 – 240	°C	
Barrel - Zone 1 Temperature	180 – 210	°C	
Barrel - Zone 2 Temperature	190 – 220	°C	
Barrel - Zone 3 Temperature	200 – 230	°C	
Barrel - Zone 4 Temperature	200 – 230	°C	
Hopper Temperature	60 – 80	°C	
Adapter Temperature	200 – 230	°C	

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Die Temperature	200 – 230	°C	
Calibrator Temperature	50 – 70	°C	