

GELOY™ HRA150 resin

Acrylonitrile Styrene Acrylate

SABIC Innovative Plastics Europe

Message:

GELOY HRA150 is a high heat resistant ASA+PC. GELOY HRA150 shows high impact retention and color stability upon weathering, and hence can be positioned in various outdoor and indoor applications requiring superior weathering properties.

General Information			
UL YellowCard	E45329-236511		
Features	Good Color Stability		
	Good Weather Resistance		
	High Heat Resistance		
	High Impact Resistance		
Uses	Outdoor Applications		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.15	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	15.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.40 to 0.60	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.60	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	118		ISO 2039-2
Ball Indentation Hardness (H 358/30)	104	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2500	MPa	ISO 527-2/1
Tensile Stress			
Yield	55.0	MPa	ISO 527-2/5
Yield	59.0	MPa	ISO 527-2/50
Break	55.0	MPa	ISO 527-2/5
Break	59.0	MPa	ISO 527-2/50
Tensile Strain			
Yield	4.0	%	ISO 527-2/5, ISO 527-2/50
Break	120	%	ISO 527-2/5
Break	> 50	%	ISO 527-2/50
Flexural Modulus ²	2400	MPa	ISO 178
Flexural Stress	80.0	MPa	ISO 178

Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	125	mg	Internal Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ³			ISO 179/1eA
-30°C	10	kJ/m ²	
23°C	65	kJ/m ²	
Notched Izod Impact Strength ⁴			ISO 180/1A
-30°C	10	kJ/m ²	
23°C	45	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁵			
0.45 MPa, Unannealed, 100 mm Span	125	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	101	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	119	°C	ISO 306/B50
--	120	°C	ISO 306/B120
Ball Pressure Test			IEC 60695-10-2
75°C	Pass		
105°C ⁶	Pass		
CLTE - Flow (23 to 60°C)	8.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.20	W/m/K	ISO 8302
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	IEC 60093
Volume Resistivity	> 1.0E+15	ohms · cm	IEC 60093
Electric Strength (3.20 mm, in Oil)	17	kV/mm	IEC 60243-1
Relative Permittivity (1 MHz)	2.90		IEC 60250
Dissipation Factor (1 MHz)	0.015		IEC 60250
Comparative Tracking Index	175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.750 mm	HB		
3.00 mm	HB		
Glow Wire Flammability Index (3.20 mm)	750	°C	IEC 60695-2-12
Oxygen Index	20	%	ISO 4589-2
Injection	Nominal Value	Unit	
Drying Temperature	100 to 110	°C	
Drying Time	2.0 to 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	60.0 to 80.0	°C	

Rear Temperature	230 to 260	°C
Middle Temperature	250 to 290	°C
Front Temperature	250 to 290	°C
Nozzle Temperature	240 to 280	°C
Processing (Melt) Temp	260 to 290	°C
Mold Temperature	60.0 to 90.0	°C

NOTE		
1.	Tensile Bar	
2.	2.0 mm/min	
3.	80*10*4 sp=62mm	
4.	80*10*4	
5.	120*10*4 mm	
6.	Approximate maximum	

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