

GELOY™ Resin HRA222F - Europe

Polycarbonate + ASA

SABIC

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

PC/ASA flame retardant, excellent weatherability.

General

Material Status	• Commercial: Active		
UL Yellow Card ¹	• E45329-100183332 • E45329-462200		
Search for UL Yellow Card	• SABIC • GELOY™ Resin		
Availability	• Europe		
Additive	• Flame Retardant		
Features	• Bromine Free • Chlorine Free	• Flame Retardant • General Purpose	
Uses	• Appliances • Construction Applications • Electrical/Electronic Applications	• Electronic Displays • Lawn and Garden Equipment • Lighting Applications	• Medical/Healthcare Applications • Outdoor Applications
RoHS Compliance	• RoHS Compliant		
Processing Method	• Injection Molding		
Also Available In	• Asia Pacific	• Latin America	• North America

Physical	Nominal Value Unit	Test Method
Density	1.17 g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	13 cm³/10min	ISO 1133
Molding Shrinkage - Flow ³	0.40 to 0.60 %	Internal Method
Water Absorption		ISO 62
Saturation, 23°C	0.60 %	
Equilibrium, 23°C, 50% RH	0.20 %	
Outdoor Suitability	f1	UL 746C

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus		
-- ⁴	2590 MPa	ASTM D638
--	2520 MPa	ISO 527-2/1
Tensile Strength		
Yield ⁵	63.0 MPa	ASTM D638
Yield ⁶	59.0 MPa	ASTM D638
Yield	62.0 MPa	ISO 527-2/5
Yield	60.0 MPa	ISO 527-2/50
Break ⁶	66.0 MPa	ASTM D638
Break ⁵	56.0 MPa	ASTM D638
Break	51.0 MPa	ISO 527-2/5
Break	45.0 MPa	ISO 527-2/50
Tensile Elongation		
Yield ⁶	4.2 %	ASTM D638
Yield ⁵	4.3 %	ASTM D638
Yield	4.3 %	ISO 527-2/5
Yield	4.4 %	ISO 527-2/50
Break ⁶	> 100 %	ASTM D638
Break ⁵	> 100 %	ASTM D638
Break	> 50 %	ISO 527-2/5 ISO 527-2/50
Flexural Modulus ⁷	2510 MPa	ISO 178



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Mechanical	Nominal Value Unit	Test Method
Flexural Stress ^{7, 8}	93.0 MPa	ISO 178
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	15 kJ/m ²	ISO 179/1eA
Notched Izod Impact		
0°C	290 J/m	ASTM D256
23°C	390 J/m	ASTM D256
-30°C ¹⁰	9.0 kJ/m ²	ISO 180/1A
0°C ¹⁰	12 kJ/m ²	ISO 180/1A
23°C ¹⁰	17 kJ/m ²	ISO 180/1A
Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature ¹¹		
0.45 MPa, Unannealed, 4.00 mm, 100 mm Span	99.0 °C	ISO 75-2/Be
1.8 MPa, Unannealed, 4.00 mm, 100 mm Span	88.0 °C	ISO 75-2/Ae
Vicat Softening Temperature		
--	104 °C	ISO 306/B120
--	102 °C	ISO 306/B50
--	111 °C	ISO 306/A50
Ball Pressure Test (73 to 77°C)	Pass	IEC 60695-10-2
CLTE		ISO 11359-2
Flow : -30 to 80°C	6.9E-5 cm/cm/°C	
Transverse : -30 to 80°C	7.1E-5 cm/cm/°C	
Transverse : 23 to 80°C	7.5E-5 cm/cm/°C	
Flammability	Nominal Value Unit	Test Method
Flame Rating (2.0 mm, Testing by SABIC)	V-0	UL 94
Glow Wire Flammability Index (1.0 mm)	960 °C	IEC 60695-2-12
Oxygen Index	29 %	ISO 4589-2
Injection	Nominal Value Unit	
Drying Temperature	80 to 90 °C	
Drying Time	2.0 to 4.0 hr	
Suggested Max Moisture	0.020 %	
Hopper Temperature	60 to 80 °C	
Rear Temperature	200 to 230 °C	
Middle Temperature	220 to 260 °C	
Front Temperature	230 to 270 °C	
Nozzle Temperature	220 to 260 °C	
Processing (Melt) Temp	230 to 270 °C	
Mold Temperature	50 to 70 °C	

Notes

¹ A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

² Typical properties: these are not to be construed as specifications.

³ Tensile Bar

⁴ 5.0 mm/min

⁵ Type I, 50 mm/min

⁶ Type I, 5.0 mm/min

⁷ 2.0 mm/min

⁸ at Yield

⁹ 80*10*4 sp=62mm

¹⁰ 80*10*4 mm

¹¹ 120*10*4 mm



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Where to Buy

Supplier

SABIC

Web: <http://www.sabic.com/>

Distributor

3Polymer (Guangzhou) Chemical Technology Co., Ltd.

Telephone: +86-20-3466-7988

Web: <http://3polymer.com>

Availability: China

AECTRA

Telephone: +33-4-72-54-36-42

Web: <https://www.aectra.fr/>

Availability: Bulgaria, Romania

GRÄSSLIN

Telephone: +49-7721-4040-261

Web: <https://www.graesslin-kunststoffe.de>

Availability: Germany

Hisun Chemical (HK) Limited

Telephone: +86-20-8732-0686

Web: <http://www.hisunchemical.com>

Availability: Asia Pacific

Lenorplastics

Telephone: +41-61-706-11-11

Web: <https://www.lenorplastics.ch>

Availability: Switzerland

Plastoplan

Telephone: +43-1-25040-0

Web: <http://www.plastoplan.com/>

Availability: Austria, Czech Republic, Hungary, Poland, Slovakia

POLYMIX

POLYMIX is a Pan European distribution company. Contact POLYMIX for availability of individual products by country.

Telephone: +33-3-8920-1380

Web: <http://www.polymix.eu/>

Availability: France

RESINEX Group

RESINEX is a Pan European distribution company. Contact RESINEX for availability of individual products by country.

Telephone: +32-14-672511

Web: <http://www.resinex.com/>

Availability: Europe

Ultrapolymers

Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.

Telephone: +32-11-57-95-57

Web: <http://www.ultrapolymers.com/>

Availability: Belgium, Netherlands, South Africa

