

GELOY* CR7500 Resin
GE Plastics - Acrylonitrile Styrene Acrylate + AMSAN

Wednesday, November 22, 2006

General Information

Product Description
 ASA with optimum flow-impact balance.

General

Material Status	<ul style="list-style-type: none"> Commercial: Active
Availability	<ul style="list-style-type: none"> North America
Test Standards Available	<ul style="list-style-type: none"> ASTM ISO
Features	<ul style="list-style-type: none"> Flow, Good Impact Resistance, Good
Forms	<ul style="list-style-type: none"> Pellets
Processing Method	<ul style="list-style-type: none"> Injection Molding

ASTM and ISO Properties ¹

Physical	Nominal Value Unit	Test Method
Density -Specific Gravity	1.08 sp gr 23/23°C	ASTM D792
Density	1.07 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)		ASTM D1238
(220°C/10.0 kg)	6.3 g/10 min	
(260°C/5.0 kg)	11.0 g/10 min	
Melt Volume-Flow Rate (MVR)		ISO 1133
(220°C/10.0 kg)	0.403 in ³ /10min	
(260°C/5.0 kg)	0.610 in ³ /10min	
Mold Shrink, Linear-Flow (0.126 in)	0.0050 to 0.0080 in/in	ASTM D955
Water Absorption Sat/23C	0.50 %	ISO 62
Water Absorption 23C/50RH	0.20 %	ISO 62
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus ²	286000 psi	ASTM D638
Tensile Modulus ³	296000 psi	ISO 527-1, -2
Tensile Strength @ Yield ⁴	5800 psi	ASTM D638
Tensile Stress at Yield ²	6240 psi	ISO 527-1, -2
Tensile Strength @ Break ⁴	4790 psi	ASTM D638
Tensile Stress at Break ²	5080 psi	ISO 527-1, -2
Tensile Elongation @ Yld ⁴	3.6 %	ASTM D638
Tensile Strain at Yield ²	3.3 %	ISO 527-1, -2
Tensile Elongation @ Brk ⁴	60 %	ASTM D638
Tensile Strain at Break ²	19 %	ISO 527-1, -2
Flexural Modulus (1.97 in Span) ⁵	315000 psi	ASTM D790
Flexural Modulus ⁶	299000 psi	ISO 178
Flexural Strength @ Yield (1.97 in Span) ⁵	9860 psi	ASTM D790
Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength (73 °F) ⁷	6.66 ft-lb/in ²	ISO 179
Notched Izod Impact		ASTM D256
(-22 °F)	1.12 ft-lb/in	
(73 °F)	7.49 ft-lb/in	

Notched Izod Impact Strength ⁸ (-22 °F) (73 °F)	2.86 ft-lb/in ² 7.14 ft-lb/in ²	ISO 180
Instrumented Dart Impact (73 °F)	Total Energy: 266 in-lb	ASTM D3763
Thermal	Nominal Value Unit	Test Method
DTUL @264psi - Unannealed (0.126 in)	194 °F	ASTM D648
HDT A (1.80 MPa) Unannealed		ISO 75A-1, -2
(-) ⁹	190 °F	
(-) ¹⁰	192 °F	
Vicat Softening Point (Rate B, Loading 2 (50 N))	208 °F	ASTM D1525
Vicat Softening Temperature (B120 (120°C/h 50N)) (B50 (50°C/h 50N))	221 °F 216 °F	ISO 306
CLTE, Flow (TMA) (-40 to 104°F (-40 to 40°C))	0.000047 in/in/°F	ASTM E831
Coefficient of Linear Thermal Expansion, Flow (-40 to 104°F (-40 to 40°C))	0.000047 in/in/°F	ISO 11359-1, -2
CLTE, Transverse (TMA) (-40 to 104°F (-40 to 40°C))	0.000053 in/in/°F	ASTM E831
Coefficient of Linear Thermal Expansion, Transverse (-40 to 104°F (-40 to 40°C))	0.000053 in/in/°F	ISO 11359-1, -2

Additional Properties

Ball Pressure Test, IEC 60695-10-2, Approximate Maximum: 98°C
 Flexural Stress at Yield, ISO 178, 2 mm/min: 64 MPa

Processing Information

Injection	Nominal Value Unit
Drying Temperature	185 to 203 °F
Drying Time	3.0 to 4.0 hr
Drying Time, Maximum	8.0 hr
Suggested Max Moisture	0.040 %
Suggested Shot Size	40 to 80 %
Rear Temperature	446 to 482 °F
Middle Temperature	455 to 491 °F
Front Temperature	473 to 500 °F
Nozzle Temperature	455 to 491 °F
Processing (Melt) Temp	491 to 518 °F
Mold Temperature	140 to 185 °F
Back Pressure	43.5 to 145 psi
Screw Speed	30 to 80 rpm
Vent Depth	0.0015 to 0.0030 in

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.20 in/min

³ 0.039 in/min

⁴ Type I, 0.20 in/min

⁵ 0.051 in/min

⁶ 0.079 in/min

⁷ Type 1, Edgewise, Notch A

⁸ Type 1, Notch A

⁹ Edgewise, 120*10*4 mm, 3.94 in

¹⁰ Flatwise, 80*10*4 mm, 2.52 in

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