Geon™ Vinyl Rigid Molding 85891

Rigid Polyvinyl Chloride

Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• General Purpose	• High Impact Resistance	• Medium Flow
Uses	• Fluid Handling	• General Purpose	• Outdoor Applications
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.47	1.47	ASTM D792
Spiral Flow	23.0 in	58.4 cm	
Molding Shrinkage - Flow	2.0E-3 to 5.0E-3 in/in	0.20 to 0.50 %	ASTM D955
Outdoor Suitability (All Colors)	f2	f2	UL 746C
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]	420000 psi	2900 MPa	ASTM D638
Tensile Strength [2] (Yield)	7100 psi	49.0 MPa	ASTM D638
Tensile Elongation [2] (Break)	26 %	26 %	ASTM D638
Flexural Modulus	400000 psi	2760 MPa	ASTM D790
Flexural Strength	12000 psi	82.7 MPa	ASTM D790
Impact	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Notched Izod Impact			ASTM D256A
32°F (0°C), 0.125 in (3.18 mm), Injection Molded	2.0 ft·lb/in	110 J/m	
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	15 ft·lb/in	800 J/m	
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore D)	84	84	ASTM D2240
Thermal	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.250 in (6.35 mm)	160 °F	71.1 °C	
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Annealed, 0.250 in (6.35 mm)	169 °F	76.1 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	154 °F	67.8 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Annealed, 0.250 in (6.35 mm)	162 °F	72.2 °C	
RTI Elec	167 °F	75.0 °C	UL 746
RTI Imp	122 °F	50.0 °C	UL 746
RTI Str	167 °F	75.0 °C	UL 746

Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating			UL 94
0.0650 in (1.65 mm), ALL	V-0	V-0	
0.120 in (3.05 mm), ALL	5VA	5VA	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	390 to 400 °F	199 to 204 °C

Notes

[1] Typical values are not to be construed as specifications.

[2] 2.0 in/min (51 mm/min)

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