



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
Density / 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 66 psi (0.45 MPa), Unannealed, 0.250 in (6.35 mm)	160 °F	71.1 °C	ASTM D648
Deflection Temperature Under Load 66 psi (0.45 MPa), Annealed, 0.250 in (6.35 mm)	169 °F	76.1 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	154 °F	67.8 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Annealed, 0.250 in (6.35 mm)	162 °F	72.2 °C	ASTM D648
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
0.07 in (1.7 mm), ALL	V-0	V-0	
0.12 in (3.0 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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