



Geon™ Vinyl Rigid Molding M3900

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 Flow	• Low Temperature Impact Resistance
Uses	• Appliances • Business Equipment	• Construction Applications • Electrical/Electronic Applications	• General Purpose • Telecommunications
Forms	• Pellets		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.33	1.33	ASTM D792
Spiral Flow	35.0 in	88.9 cm	
Molding Shrinkage - Flow	2.0E-3 to 5.0E-3 in/in	0.20 to 0.50 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	330000 psi	2280 MPa	ASTM D638
Tensile Strength ² (Yield)	5500 psi	37.9 MPa	ASTM D638
Tensile Elongation ² (Break)	60 %	60 %	ASTM D638
Flexural Modulus	330000 psi	2280 MPa	ASTM D790
Flexural Strength	9500 psi	65.5 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
0°F (-18°C), 0.125 in (3.18 mm), Injection Molded	4.0 ft·lb/in	210 J/m	
32°F (0°C), 0.125 in (3.18 mm), Injection Molded	11 ft·lb/in	590 J/m	
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	14 ft·lb/in	750 J/m	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D)	75	75	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)	171 °F	77.2 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	158 °F	70.0 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Annealed, 0.250 in (6.35 mm)	163 °F	72.8 °C	ASTM D648
RTI Elec	194 °F	90.0 °C	UL 746

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Thermal	Typical Value (English)	Typical Value (SI)	Test Method
RTI Imp	185 °F	85.0 °C	UL 746
RTI Str	194 °F	90.0 °C	UL 746
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating			UL 94
0.0550 in (1.40 mm), ALL	V-0	V-0	
0.0551 in (1.40 mm), ALL	5VB	5VB	
CSA Flammability ³			
59.0 mil (1.50 mm)	V-0	V-0	
75.2 mil (1.91 mm)	5VB	5VB	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	390 to 410 °F	199 to 210 °C

Notes

¹ Typical values are not to be construed as specifications.

² Type I, 2.0 in/min (51 mm/min)

³ All Colors

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