



Geon™ Vinyl Rigid Molding M4110

Rigid Polyvinyl Chloride

Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Food Contact Acceptable • General Purpose • Medium Flow • Medium Impact Resistance		
Uses	• Fluid Handling • General Purpose		
Agency Ratings	• FDA Food Contact, Unspecified Rating • NSF 14 • NSF 61 • NSF Unspecified Rating		
Appearance	• Clear/Transparent		
Forms	• Pellets		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.33	1.33	ASTM D792
Spiral Flow	25.0 in	63.5 cm	
Molding Shrinkage - Flow	2.0E-3 to 5.0E-3 in/in	0.20 to 0.50 %	ASTM D955
PVC Cell Classification	14454	14454	ASTM D1784
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	410000 psi	2830 MPa	ASTM D638
Tensile Strength ² (Yield)	7700 psi	53.1 MPa	ASTM D638
Tensile Elongation ² (Break)	30 %	30 %	ASTM D638
Flexural Modulus	410000 psi	2830 MPa	ASTM D790
Flexural Strength	12500 psi	86.2 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	1.0 ft·lb/in	53 J/m	
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	6.0 ft·lb/in	320 J/m	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D)	82	82	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)	158 °F	70.0 °C	
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Annealed, 0.250 in (6.35 mm)	163 °F	72.8 °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)	160 °F	71.1 °C	

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Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.0591 in (1.50 mm), ALL)	V-0	V-0	UL 94
Optical	Typical Value (English)	Typical Value (SI)	Test Method
Transmittance ³ (125 mil (3180 μm))	80.0 %	80.0 %	ASTM D1003
Haze (125 mil (3180 μm))	4.0 %	4.0 %	ASTM D1003

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 Type I, 2.0 in/min (51 mm/min)

³ CIE Illuminant C

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