



# Geon™ Vinyl Rigid Molding M4810

## 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 • High Flow • High Impact Resistance		
Uses	• General Purpose		
Agency Ratings	• FDA Food Contact, Unspecified Rating • USP Class VI		
Appearance	• Clear/Transparent		
Forms	• Pellets		

### Technical Properties <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.30	1.30	ASTM D792
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 <sup>2</sup>	350000 psi	2410 MPa	ASTM D638
Tensile Strength <sup>2</sup> (Yield)	6500 psi	44.8 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	35 %	35 %	ASTM D638
Flexural Modulus	350000 psi	2410 MPa	ASTM D790
Flexural Strength	10200 psi	70.3 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	13 ft-lb/in	690 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)	156 °F	68.9 °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)	153 °F	67.2 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Annealed, 0.250 in (6.35 mm)	156 °F	68.9 °C	
RTI Elec	122 °F	50.0 °C	UL 746
RTI Imp	122 °F	50.0 °C	UL 746
RTI Str	122 °F	50.0 °C	UL 746

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Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating			UL 94
0.0590 in (1.50 mm), ALL	V-0	V-0	
0.0750 in (1.91 mm), ALL	5VA	5VA	
Optical	Typical Value (English)	Typical Value (SI)	Test Method
Transmittance <sup>3</sup> (125 mil (3180 μm))	75.0 %	75.0 %	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**

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> Type I, 2.0 in/min (51 mm/min)

<sup>3</sup> CIE Illuminant C

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