Geon™ Vinyl Rigid Molding M4820

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	• High Impact Resistance
Uses	• General Purpose		
Appearance	• Clear/Transparent		
Forms	• Pellets		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.30	1.30	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]	350000 psi	2410 MPa	ASTM D638
Tensile Strength [2] (Yield)	6500 psi	44.8 MPa	ASTM D638
Tensile Elongation [2] (Break)	40 %	40 %	ASTM D638
Flexural Modulus	350000 psi	2410 MPa	ASTM D790
Flexural Strength	10000 psi	68.9 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)	81	81	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	
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

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 [3] (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

[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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