



Geon™ Vinyl Rigid Molding M3500

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	• Appliances • Business Equipment	• Construction Applications • Electrical/Electronic Applications	• General Purpose • Telecommunications
Appearance	• Opaque		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.36	1.36	ASTM D792
Spiral Flow	28.0 in	71.1 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	370000 psi	2550 MPa	ASTM D638
Tensile Strength ² (Yield)	6700 psi	46.2 MPa	ASTM D638
Tensile Elongation ² (Break)	50 %	50 %	ASTM D638
Flexural Modulus	360000 psi	2480 MPa	ASTM D790
Flexural Strength	10300 psi	71.0 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	12 ft·lb/in	640 J/m	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D)	80	80	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)	163 °F	72.8 °C	
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Annealed, 0.250 in (6.35 mm)	171 °F	77.2 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	160 °F	71.1 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Annealed, 0.250 in (6.35 mm)	167 °F	75.0 °C	
RTI Elec	185 °F	85.0 °C	UL 746
RTI Imp	185 °F	85.0 °C	UL 746

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Thermal	Typical Value (English)	Typical Value (SI)	Test Method
RTI Str	185 °F	85.0 °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	
0.0630 in (1.60 mm), ALL	5VA	5VA	

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)

CONTACT INFORMATION

Americas

United States - Avon Lake
+1 440 930 1000

United States - McHenry
+1 815 385 8500

Asia

China - Guangzhou
+86 20 8732 7260

China - Shenzhen
+86 755 2969 2888

China - Suzhou
+86 512 6823 24 38

China - Suzhou
+86 512 6265 2600

Hong Kong -
+852 2690 5332

Taiwan - Yonghe City,
+886 9396 99740, +886 2929 1849

Europe

Germany - Gaggenau
+49 7225 6802 0

Spain - Barbastro (Huesca)
+34 974 310 314



Beyond Polymers.

Better Business Solutions. SM

www.polyone.com

PolyOne Americas

33587 Walker Road
Avon Lake, Ohio 44012
United States
+1 440 930 1000
+1 866 POLYONE

PolyOne Asia

No. 88 Guoshoujing Road
Z.J Hi-tech Park, Pudong
Shanghai, 201203, China
+86 21 5080 1188

PolyOne Europe

6 Giällewee
+352 269 050 35

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