



# Geon™ Vinyl Rigid Molding M4300

## 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	• Fluid Handling • General Purpose		
Agency Ratings	• NSF 61 • NSF Unspecified Rating		
Appearance	• Clear/Transparent		
Forms	• Pellets		

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

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.32	1.32	ASTM D792
Spiral Flow	23.0 in	58.4 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 <sup>2</sup>	410000 psi	2830 MPa	ASTM D638
Tensile Strength <sup>2</sup> (Yield)	7900 psi	54.5 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	30 %	30 %	ASTM D638
Flexural Modulus	400000 psi	2760 MPa	ASTM D790
Flexural Strength	11500 psi	79.3 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	1.0 ft-lb/in	53 J/m	
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	16 ft-lb/in	850 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 66 psi (0.45 MPa), Unannealed, 0.250 in (6.35 mm)	158 °F	70.0 °C	ASTM D648
Deflection Temperature Under Load 66 psi (0.45 MPa), Annealed, 0.250 in (6.35 mm)	169 °F	76.1 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	154 °F	67.8 °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

Copyright © 2015 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

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))	78.0 %	78.0 %	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

**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 - Barbastró (Huesca)  
+34 974 310 314



Beyond Polymers.

Better Business Solutions. <sup>SM</sup>

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 Giallewee  
+352 269 050 35

Copyright ©, 2015 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.