

# GEON® Rigid M3000

## GEON Performance Solutions - Rigid Polyvinyl Chloride

Thursday, November 2, 2023

### General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Uses	• Fittings		
Agency Ratings	• NSF STD-14	• NSF STD-61	• NSF Type I
Forms	• Pellets		
Processing Method	• Injection Molding		

### ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.40	1.40	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	12454	12454	ASTM D1784
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus <sup>2</sup>	450000 psi	3100 MPa	ASTM D638
Tensile Strength <sup>2</sup> (Yield)	7400 psi	51.0 MPa	ASTM D638
Flexural Modulus	450000 psi	3100 MPa	ASTM D790
Flexural Strength	13300 psi	91.7 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	1.0 ft·lb/in	53 J/m	
73°F (23°C), 0.250 in (6.35 mm), Injection Molded	0.70 ft·lb/in	37 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	82	82	ASTM D2240
Thermal	Nominal Value (English)	Nominal 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	
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	162 °F	72.2 °C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating (0.06 in (1.6 mm), ALL)	V-0	V-0	UL 94

### Processing Information

Injection	Nominal Value (English)	Nominal Value (SI)
Processing (Melt) Temp	390 to 410 °F	199 to 210 °C

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

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

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