



Geon™ Vinyl Rigid Extrusion 87771

Rigid Polyvinyl Chloride

Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Uses	• Outdoor Applications	• Profiles	• Windows & Doors
Agency Ratings	• AAMA 303		
Forms	• Pellets		
Processing Method	• Extrusion	• Profile Extrusion	

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.43	1.43	ASTM D792
PVC Cell Classification	1-41434-33	1-41434-33	ASTM D4216
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	395000 psi	2720 MPa	ASTM D638
Tensile Strength ² (Yield)	6670 psi	46.0 MPa	ASTM D638
Flexural Modulus	398000 psi	2740 MPa	ASTM D790
Flexural Strength	11700 psi	80.6 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	23 ft·lb/in	1200 J/m	
Across Flow : 73°F (23°C), 0.125 in (3.18 mm), Compression Molded	4.1 ft·lb/in	220 J/m	
Flow : 73°F (23°C), 0.125 in (3.18 mm), Compression Molded	13 ft·lb/in	680 J/m	
Drop Impact Resistance			ASTM D4226
73°F (23°C) ³	1.46 in·lb/mil	64.9 J/cm	
73°F (23°C) ⁴	3.57 in·lb/mil	159 J/cm	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D, 15 sec)	84	84	ASTM D2240
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	161 °F	71.7 °C	
CLTE - Flow	3.7E-5 in/in/°F	6.7E-5 cm/cm/°C	ASTM D696
Additional Information	Typical Value (English)	Typical Value (SI)	
Ease of Sizing	Excellent	Excellent	
Note: The Cell Classification was determined using the notched Izod test with injection molded samples.			

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	360 to 380 °F	182 to 193 °C

Notes

¹ Typical values are not to be construed as specifications.

² Type I, 0.20 in/min (5.1 mm/min)

³ Procedure A, C.125 Dart

⁴ Procedure B, C.125 Dart



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