



Geon™ Vinyl Rigid Extrusion 85857

Rigid Polyvinyl Chloride

Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Weather Resistance	• High Impact Resistance	
Uses	• Outdoor Applications	• Profiles	• Windows & Doors
Agency Ratings	• AAMA 303		
Forms	• Cube		
Processing Method	• Extrusion		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.46	1.46	ASTM D792
PVC Cell Classification	1-41432-33	1-41432-33	ASTM D4216
PVC Cell Classification	16334	16334	ASTM D1784
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	355000 psi	2450 MPa	ASTM D638
Tensile Strength ² (Yield)	6200 psi	42.7 MPa	ASTM D638
Flexural Modulus	410000 psi	2830 MPa	ASTM D790
Flexural Strength	11300 psi	77.9 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
Across Flow : 73°F (23°C), 0.125 in (3.18 mm), Compression Molded	3.8 ft·lb/in	200 J/m	
Flow : 73°F (23°C), 0.125 in (3.18 mm), Compression Molded	4.1 ft·lb/in	220 J/m	
Drop Impact Resistance			ASTM D4226
73°F (23°C) ³	1.20 in·lb/mil	53.4 J/cm	
73°F (23°C) ⁴	4.20 in·lb/mil	187 J/cm	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D, 15 sec)	83	83	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)	163 °F	72.8 °C	
CLTE - Flow	3.3E-5 in/in/°F	5.9E-5 cm/cm/°C	ASTM D696
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating			UL 94
0.0295 in (0.749 mm), ALL	V-0	V-0	
0.118 in (3.00 mm), ALL	5VA	5VA	
Additional Information	Typical Value (English)	Typical Value (SI)	Test Method
AAMA 303	Pass	Pass	ASTM D4726
Ease of Sizing	Good	Good	

Note: The Cell Classification was determined using the notched Izod test with injection molded samples.

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Processing Information

Extrusion	Typical Value (English)	Typical Value (SI)
Melt Temperature	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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