



Geon™ Vinyl Rigid Extrusion 87416

Rigid Polyvinyl Chloride

Key Characteristics

General	
Material Status	• Commercial: Active
Regional Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Features	• High Impact Resistance • Weather Resistant
Uses	• Automotive Applications • Profiles • Outdoor Applications • Windows & Doors
Agency Ratings	• AAMA 303
Automotive Specifications	• CHRYSLER MS-DC-28 Type B CPN3012 Color: Black • GM GM7001M (PVC)
Appearance	• Colors Available
Forms	• Pellets
Processing Method	• Extrusion

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.45	1.45	ASTM D792
PVC Cell Classification	1-31432-33	1-31432-33	ASTM D4216
PVC Cell Classification	13344	13344	ASTM D1784
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	360000 psi	2480 MPa	ASTM D638
Tensile Strength ² (Yield)	6400 psi	44.1 MPa	ASTM D638
Flexural Modulus	430000 psi	2960 MPa	ASTM D790
Flexural Strength	12300 psi	84.8 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	3.0 ft·lb/in	160 J/m	
Flow : 73°F (23°C), 0.125 in (3.18 mm), Compression Molded	2.9 ft·lb/in	150 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	4.00 in·lb/mil	178 J/cm	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D, 15 sec)	82	82	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	3.4E-5 in/in/°F	6.1E-5 cm/cm/°C	ASTM D696
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.030 in (0.75 mm), ALL)	V-0	V-0	UL 94
CSA Flammability ⁵ (38.6 mil (980.4 µm))	V-0	V-0	

Additional Information	Typical Value (English)	Typical Value (SI)	Test Method
AAMA 303	Pass	Pass	ASTM D4726
Ease of Sizing	Acceptable	Acceptable	

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

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

⁵ All Colors



Beyond Polymers.

Better Business Solutions.™