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	• Good Weather Resistance	• High Impact Resistance	
Uses	• Automotive Applications • Outdoor Applications	• Profiles • 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
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 (0.0295 in (0.749 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

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