Geon™ Vinyl Rigid Extrusion L6180

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		
Uses	• Building Materials • Outdoor Applications	• Profiles • Windows & Doors	
Appearance	• Brown		
Forms	• Pellets		
Processing Method	• Extrusion		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.29	1.29	ASTM D792
PVC Cell Classification	1-02453-43	1-02453-43	ASTM D4216
PVC Cell Classification	11444	11444	ASTM D1784
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]	389000 psi	2680 MPa	ASTM D638
Tensile Strength [2] (Yield)	7640 psi	52.7 MPa	ASTM D638
Flexural Modulus	398000 psi	2740 MPa	ASTM D790
Flexural Strength	13400 psi	92.5 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	0.30 ft·lb/in	16 J/m	
Across Flow : 73°F (23°C), 0.125 in (3.18 mm), Compression Molded	0.40 ft·lb/in	21 J/m	
Flow : 73°F (23°C), 0.125 in (3.18 mm), Compression Molded	0.30 ft·lb/in	16 J/m	
Drop Impact Resistance			ASTM D4226
73°F (23°C) [3]	1.97 in·lb/mil	87.6 J/cm	
73°F (23°C) [4]	3.34 in·lb/mil	149 J/cm	
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness (Shore D, 15 sec)	85	85	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)	168 °F	75.6 °C	
CLTE - Flow	4.0E-5 in/in/°F	7.2E-5 cm/cm/°C	ASTM D696

Additional Information

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

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