



Geon™ Vinyl Rigid Extrusion L7100

Rigid Polyvinyl Chloride

Key Characteristics

Product Description

Geon L7100 is recommended for whites and light pastel colors only. Not recommended for horizontal applications such as railing and decking except in white.

General

Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Weather Resistance • Medium Impact Resistance		
Uses	• Outdoor Applications • Profiles		
Forms	• Cube		
Processing Method	• Extrusion		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.47	1.47	ASTM D792
PVC Cell Classification	15354	15354	ASTM D1784
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	404000 psi	2780 MPa	ASTM D638
Tensile Strength ² (Yield)	6460 psi	44.6 MPa	ASTM D638
Flexural Modulus	460000 psi	3170 MPa	ASTM D790
Flexural Strength	11800 psi	81.3 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), Compression Molded ³	11 to 15 ft·lb/in	570 to 810 J/m	
73°F (23°C), 0.125 in (3.18 mm), Compression Molded ⁴	2.4 ft·lb/in	130 J/m	
Drop Impact Resistance			ASTM D4226
73°F (23°C) ^{5,3}	1.69 to 1.74 in·lb/mil	75.2 to 77.4 J/cm	
73°F (23°C) ^{6,3}	1.73 to 1.78 in·lb/mil	77.0 to 79.2 J/cm	
73°F (23°C), 0.0800 in (2.03 mm) ^{7,8}	1.67 in·lb/mil	74.3 J/cm	
73°F (23°C), 0.0800 in (2.03 mm) ^{9,8}	2.50 in·lb/mil	111 J/cm	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D, 15 sec)	73	73	ASTM D2240
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Annealed, 0.125 in (3.18 mm) ¹⁰	172 °F	77.6 °C	
66 psi (0.45 MPa), Annealed, 0.125 in (3.18 mm) ¹¹	167 °F	75.2 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm), Compression Molded ¹⁰	168 °F	75.4 °C	
264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm), Compression Molded ¹¹	162 °F	72.3 °C	

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Thermal	Typical Value (English)	Typical Value (SI)	Test Method
CLTE - Flow	3.2E-5 in/in/°F	5.8E-5 cm/cm/°C	ASTM D696
Additional Information	Typical Value (English)	Typical Value (SI)	
Ease of Sizing	Acceptable	Acceptable	
Note: Physical properties based on Geon L7100 white 1380 Lot#4952160 unless noted otherwise.			

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 Physical property based on lab scale production sample.
- ⁴ Physical property based on commercial production sample. Compression molding of extruded strips.
- ⁵ Procedure A, C.125 Dart
- ⁶ Procedure B, C.125 Dart
- ⁷ Procedure A, 1/8 conical
- ⁸ Based on lab scale extrusion of commercial production sample.
- ⁹ Procedure B, 0.125" conical
- ¹⁰ Annealed at 60 deg.C
- ¹¹ Annealed at 50 deg.C

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