



Geon™ Fiberloc™ 81510

Rigid Polyvinyl Chloride

Key Characteristics

General	
Material Status	• Commercial: Active
Regional Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 10% Filler by Weight
Features	• General Purpose • High Flow
Uses	• Fluid Handling • General Purpose
Agency Ratings	• NSF STD-61
Forms	• Pellets

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.48	1.48	ASTM D792
Spiral Flow	37.0 in	94.0 cm	
Molding Shrinkage - Flow	5.0E-4 to 1.5E-3 in/in	0.050 to 0.15 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	800000 psi	5520 MPa	ASTM D638
Tensile Strength ² (Yield)	11000 psi	75.8 MPa	ASTM D638
Tensile Elongation ² (Break)	2.0 %	2.0 %	ASTM D638
Flexural Modulus	750000 psi	5170 MPa	ASTM D790
Flexural Strength	17000 psi	117 MPa	ASTM D790
Poisson's Ratio	0.42	0.42	ASTM E132
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.125 in (3.18 mm), Injection Molded	1.0 ft·lb/in	53 J/m	ASTM D256A
Unnotched Izod Impact ³ 73°F (23°C), 0.125 in (3.18 mm)	4.0 ft·lb/in	210 J/m	ASTM D4812
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D)	86	86	ASTM D2240
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Annealed, 0.250 in (6.35 mm)	169 °F	76.1 °C	ASTM D648
CLTE - Flow	1.7E-5 in/in/°F	3.1E-5 cm/cm/°C	ASTM D696
RTI Elec	122 °F	50.0 °C	UL 746
RTI Imp	122 °F	50.0 °C	UL 746
RTI Str	122 °F	50.0 °C	UL 746
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.06 in (1.5 mm), ALL)	• V-0 • 5VA	• V-0 • 5VA	UL 94

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	390 to 410 °F	199 to 210 °C

Notes

¹ Typical values are not to be construed as specifications.

² Type I, 2.0 in/min (51 mm/min)

³ Injection Molded

The logo for PolyOne, featuring the word "PolyOne" in a stylized, italicized serif font with a horizontal line underneath.

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