



Geon™ Vinyl Packaging 2121C

Rigid Polyvinyl Chloride

Key Characteristics

Product Description	
A Clear Rigid PVC Compound designed specifically for water bottle applications.	
General	
Material Status	• Commercial: Active
Regional Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Features	• Food Contact Acceptable • High Gloss • High Impact Resistance
Uses	• Bottles • Packaging
Agency Ratings	• FDA Food Contact, Unspecified Rating
Appearance	• Clear/Transparent
Forms	• Pellets
Processing Method	• Blow Molding

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.32	1.32	ASTM D792
Density	0.801 g/cm ³	0.801 g/cm ³	ASTM D1505
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	394000 psi	2720 MPa	ASTM D638
Tensile Strength ² (Yield)	6000 psi	41.4 MPa	ASTM D638
Flexural Modulus	382000 psi	2630 MPa	ASTM D790
Flexural Strength	11400 psi	78.4 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.125 in (3.18 mm), Injection Molded	23 ft·lb/in	1200 J/m	ASTM D256A
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Rockwell Hardness (R-Scale)	100	100	ASTM D785
Durometer Hardness (Shore D)	83	83	ASTM D2240
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	149 °F	65.0 °C	ASTM D648
Optical	Typical Value (English)	Typical Value (SI)	Test Method
Transmittance			Internal Method
33.5 mil (851 µm), 400 nm	81.0 %	81.0 %	
33.5 mil (851 µm), 700 nm	86.5 %	86.5 %	
Additional Information	Typical Value (English)	Typical Value (SI)	
Blow Molding Temperature	390 to 415 °F	199 to 213 °C	

Notes

¹ Typical values are not to be construed as specifications.

² Type I, 0.20 in/min (5.1 mm/min)