Geon™ Vinyl Packaging 2188

Rigid Polyvinyl Chloride

Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • 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/cm³	0.801 g/cm³	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			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	23 ft·lb/in	1200 J/m	
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			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	149 °F	65.0 °C	
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)