



Geon™ Vinyl Dry Blend EP680

Rigid Polyvinyl Chloride

Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Medium Impact Resistance		
Forms	• Powder		
Processing Method	• Extrusion		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.47	1.47	ASTM D792
PVC Cell Classification	1-23334-32-0000	1-23334-32-0000	ASTM D4216
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ² 77°F (25°C), 0.120 in (3.05 mm)	460000 psi	3170 MPa	ASTM D638
Tensile Strength ² Yield, 77°F (25°C), 0.120 in (3.05 mm)	6070 psi	41.9 MPa	ASTM D638
Flexural Modulus ³ 77°F (25°C), 0.117 in (2.97 mm)	530000 psi	3650 MPa	ASTM D790
Flexural Strength ³ 77°F (25°C), 0.117 in (2.97 mm)	12300 psi	85.1 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact - Across Flow 73°F (23°C), 0.119 in (3.02 mm), Compression Molded	1.9 ft-lb/in	100 J/m	ASTM D256A
Drop Impact Resistance 73°F (23°C) ⁴ 73°F (23°C) ⁵	2.02 in-lb/mil > 2.64 in-lb/mil	89.8 J/cm > 117 J/cm	ASTM D4226
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness Shore D, 0.242 in (6.15 mm) Shore D, 15 sec, 0.242 in (6.15 mm)	80 77	80 77	ASTM D2240
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed, 0.505 in (12.8 mm), Compression Molded	167 °F	74.9 °C	ASTM D648A
Deflection Temperature Under Load ⁶ 66 psi (0.45 MPa), Annealed, 0.504 in (12.8 mm)	166 °F	74.4 °C	ASTM D648A
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.500 in (12.7 mm), Compression Molded	156 °F	68.7 °C	ASTM D648A

Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load ⁶ 264 psi (1.8 MPa), Annealed, 0.500 in (12.7 mm), Compression Molded	164 °F	73.2 °C	ASTM D648A
CLTE - Flow -22 to 86°F (-30 to 30°C), 0.125 in (3.18 mm)	3.2E-5 in/in/°F	5.8E-5 cm/cm/°C	ASTM D696
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating	• V-0 • 5VA	• V-0 • 5VA	UL 94

Processing Information

Extrusion	Typical Value (English)	Typical Value (SI)
Melt Temperature	375 to 400 °F	191 to 204 °C

Notes

¹ Typical values are not to be construed as specifications.

² Type I, 0.20 in/min (5.1 mm/min)

³ 0.50 in/min (13 mm/min)

⁴ Procedure A, C.125 Dart

⁵ Procedure B, C.125 Dart

⁶ Annealed at 50 deg.C



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