



Geon™ HTX M6309

Polyvinyl Chloride Alloy

Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• High Flow	• Low Temperature Impact Resistance	
Uses	• Construction Applications • Electrical/Electronic Applications	• Outdoor Applications • Telecommunications	
Appearance	• Opaque		
Forms	• Pellets		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.23	1.23	ASTM D792
Spiral Flow	25.0 in	63.5 cm	
Molding Shrinkage - Flow	2.0E-3 to 5.0E-3 in/in	0.20 to 0.50 %	ASTM D955
Outdoor Suitability (Gray)	f1	f1	UL 746C
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus ²	240000 psi	1650 MPa	ASTM D638
Tensile Strength ² (Yield)	4300 psi	29.6 MPa	ASTM D638
Tensile Elongation ² (Break)	56 %	56 %	ASTM D638
Flexural Modulus	240000 psi	1650 MPa	ASTM D790
Flexural Strength	7000 psi	48.3 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
-40°F (-40°C), 0.125 in (3.18 mm), Injection Molded	4.0 ft-lb/in	210 J/m	
0°F (-18°C), 0.125 in (3.18 mm), Injection Molded	11 ft-lb/in	590 J/m	
32°F (0°C), 0.125 in (3.18 mm), Injection Molded	14 ft-lb/in	750 J/m	
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	16 ft-lb/in	850 J/m	
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness (Shore D)	75	75	ASTM D2240
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.250 in (6.35 mm)	167 °F	75.0 °C	
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Annealed, 0.250 in (6.35 mm)	183 °F	83.9 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	154 °F	67.8 °C	

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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)	165 °F	73.9 °C	ASTM D648
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			UL 94
0.0790 in (2.01 mm), ALL	V-0	V-0	
0.118 in (3.00 mm), ALL	5VA	5VA	
Additional Information	Typical Value (English)	Typical Value (SI)	
QUV Weatherometer ³	0.50 %	0.50 %	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	155 °F	68.3 °C
Drying Time	2.0 hr	2.0 hr
Processing (Melt) Temp	395 to 405 °F	202 to 207 °C

Notes

- ¹ Typical values are not to be construed as specifications.
- ² Type I, 2.0 in/min (51 mm/min)
- ³ 351 Lamp, All Colors, delta E (CIE), 24 hrs light, 300 hrs, No Moisture

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