

GEON® Rigid M4110

GEON Performance Solutions - Rigid Polyvinyl Chloride

Thursday, November 2, 2023

General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Impact Modifier		
Features	• Food Contact Acceptable	• General Purpose	• Impact Modified
Uses	• Fluid Handling • General Purpose		
Agency Ratings	• FDA Food Contact • NSF	• NSF STD-14 • NSF STD-61	
Appearance	• Clear/Transparent		
Forms	• Pellets		

ASTM & ISO Properties ¹

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.33	1.33	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
PVC Cell Classification	12343	12343	ASTM D1784
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ²	410000 psi	2830 MPa	ASTM D638
Tensile Strength ² (Yield)	7700 psi	53.1 MPa	ASTM D638
Tensile Elongation ² (Break)	30 %	30 %	ASTM D638
Flexural Modulus	410000 psi	2830 MPa	ASTM D790
Flexural Strength	12500 psi	86.2 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
32°F (0°C), 0.125 in (3.18 mm), Injection Molded	1.0 ft·lb/in	53 J/m	
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	6.0 ft·lb/in	320 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	82	82	ASTM D2240
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Unannealed, 0.250 in (6.35 mm)	158 °F	70.0 °C	
66 psi (0.45 MPa), Annealed, 0.250 in (6.35 mm)	163 °F	72.8 °C	
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	150 °F	65.6 °C	
264 psi (1.8 MPa), Annealed, 0.250 in (6.35 mm)	154 °F	67.8 °C	
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating (0.06 in (1.5 mm), ALL)	V-0	V-0	UL 94

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Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Light Transmittance ³ (125.0 mil (3175 µm))	80.0 %	80.0 %	ASTM D1003
Haze (125.0 mil (3175 µm))	4.00 %	4.00 %	ASTM D1003

Processing Information

Injection	Nominal Value (English)	Nominal Value (SI)
Processing (Melt) Temp	390 to 400 °F	199 to 204 °C

Notes

¹ Typical properties: these are not to be construed as specifications.

² Type I, 2.0 in/min (51 mm/min)

³ CIE Illuminant C

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