

GEON® Rigid M4600

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	• High Flow	• Impact Modified	
Uses	• Battery Cases		
Appearance	• Clear/Transparent		
Forms	• Pellets		

ASTM & ISO Properties ¹

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.36	1.36	ASTM D792
Spiral Flow	40.0 in	102 cm	
Molding Shrinkage - Flow	2.0E-3 to 5.0E-3 in/in	0.20 to 0.50 %	ASTM D955
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus ²	460000 psi	3170 MPa	ASTM D638
Tensile Strength ² (Yield)	8000 psi	55.2 MPa	ASTM D638
Tensile Elongation ² (Break)	30 %	30 %	ASTM D638
Flexural Modulus	440000 psi	3030 MPa	ASTM D790
Flexural Strength	13000 psi	89.6 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	0.80 ft-lb/in	43 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	81	81	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)	151 °F	66.1 °C	
66 psi (0.45 MPa), Annealed, 0.250 in (6.35 mm)	158 °F	70.0 °C	
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	145 °F	62.8 °C	
264 psi (1.8 MPa), Annealed, 0.250 in (6.35 mm)	154 °F	67.8 °C	
RTI Elec	122 °F	50.0 °C	UL 746B
RTI Imp	122 °F	50.0 °C	UL 746B
RTI Str	122 °F	50.0 °C	UL 746B
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.06 in (1.5 mm), Transparents	V-0	V-0	

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Optical	Nominal Value (English)	Nominal Value (SI)	Test Method
Light Transmittance (125.0 mil (3175 µm))	82.0 %	82.0 %	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)

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