

GEON® Rigid M3800

GEON Performance Solutions - Rigid Polyvinyl Chloride

Thursday, August 17, 2023

General Information

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Impact Modifier		
Features	• General Purpose	• High Flow	• Impact Modified
Uses	• Appliances • Business Equipment	• Construction Applications • Electrical/Electronic Applications	• General Purpose • Telecommunications
Agency Ratings	• NSF STD-51	• NSF STD-61	
RoHS Compliance	• RoHS Compliant		
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	44.0 in	112 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	330000 psi	2280 MPa	ASTM D638
Tensile Strength ² (Yield)	6000 psi	41.4 MPa	ASTM D638
Tensile Elongation ² (Break)	35 %	35 %	ASTM D638
Flexural Modulus	340000 psi	2340 MPa	ASTM D790
Flexural Strength	9700 psi	66.9 MPa	ASTM D790
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
0°F (-18°C), 0.125 in (3.18 mm), Injection Molded	2.0 ft-lb/in	110 J/m	
32°F (0°C), 0.125 in (3.18 mm), Injection Molded	5.0 ft-lb/in	270 J/m	
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	12 ft-lb/in	640 J/m	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Durometer Hardness (Shore D)	79	79	ASTM D2240

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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)	162 °F	72.2 °C	
66 psi (0.45 MPa), Annealed, 0.250 in (6.35 mm)	167 °F	75.0 °C	
264 psi (1.8 MPa), Unannealed, 0.250 in (6.35 mm)	156 °F	68.9 °C	
264 psi (1.8 MPa), Annealed, 0.250 in (6.35 mm)	163 °F	72.8 °C	
RTI Elec	194 °F	90.0 °C	UL 746B
RTI Imp	185 °F	85.0 °C	UL 746B
RTI Str	194 °F	90.0 °C	UL 746B
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.030 in (0.75 mm), ALL	V-0	V-0	
0.06 in (1.5 mm), ALL	5VA	5VA	
Additional Information	Nominal Value (English)	Nominal Value (SI)	
CSA Flammability ³ (63.0 mil (1.60 mm))	• V-0 • 5VA	• V-0 • 5VA	

Processing Information

Injection	Nominal Value (English)	Nominal Value (SI)
Processing (Melt) Temp	390 to 410 °F	199 to 210 °C

Notes

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

² Type I, 2.0 in/min (51 mm/min)

³ All Colors

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