GEON® DURATHERM MC100

GEON Performance Solutions - Chlorinated Polyvinyl Chloride

Monday, September 30, 2024

General Information

Product Description

GEON® MC100 CPVC is an Injection molding fitting compound. It is listed under NSF Std 14 and 61 and meets or exceeds ASTM D-1784 Cell Class 23447. MC100 is designed for CTS applications where enhanced resistance at elevated temperatures is needed. MC100 demonstrates ease of processing with excellent thermal stability.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Uses	• Fittings		
Agency Ratings	• NSF STD-14	• NSF STD-61	
Forms	• Pellets		
Processing Method	• Injection Molding		

ASTM & ISO Properties [1]

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density / Specific Gravity	1.51		1.51		ASTM D792
PVC Cell Classification	23447		23447		ASTM D1784
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Modulus [2]	374000	psi	2580	MPa	ASTM D638
Tensile Strength [2] (Yield)	7750	psi	53.4	MPa	ASTM D638
Flexural Modulus	400000	psi	2760	MPa	ASTM D790
Flexural Strength	13500	psi	93.1	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	5.8	ft·lb/in	310	J/m	
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Rockwell Hardness (R-Scale)	119		119		ASTM D785
Durometer Hardness (Shore D)	84		84		ASTM D2240
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Deflection Temperature Under Load					ASTM D648
264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm)	217	°F	103	°C	

Processing Information

Injection	Nominal Value	(English)	Nominal Value	(SI)
Drying Temperature	160	°F	71	°C
Drying Time	3.0 to 4.0	hr	3.0 to 4.0	hr
Processing (Melt) Temp	390 to 405	°F	199 to 207	°C

Notes

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

[2] Type I, 0.20 in/min (5.1 mm/min)

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