Geon™ CPVC EE105

Chlorinated Polyvinyl Chloride

Key Characteristics

Product Description
Geon EE105 CPVC is an extrusion grade rigid compound ideally suited for a variety of applications. EE105 offers excellent electrical properties, chemical resistance and is designed for applications where enhanced resistance at elevated temperatures is needed. EE105 demonstrates ease of processing with excellent thermal stability. All colors of EE105 are UL certified and are made with virgin materials.

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Uses	• Profiles		
Forms	• Pellets		
Processing Method	• Extrusion		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.50	1.50	ASTM D792
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]			ASTM D638
73°F (23°C), 0.125 in (3.18 mm), Compression Molded	325000 psi	2240 MPa	
Tensile Strength [2]			ASTM D638
Yield, 73°F (23°C), 0.125 in (3.18 mm), Compression Molded	7500 psi	51.7 MPa	
Tensile Elongation [2]			ASTM D638
Break, 73°F (23°C), 0.125 in (3.18 mm)	24 %	24 %	
Flexural Modulus			ASTM D790
73°F (23°C), 0.125 in (3.18 mm)	350000 psi	2410 MPa	
Flexural Strength			ASTM D790
73°F (23°C), 0.125 in (3.18 mm)	11000 psi	75.8 MPa	
Impact	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Drop Impact Resistance [3] (73°F (23°C))	1.50 in·lb/mil	66.7 J/cm	ASTM D4226
Hardness	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Durometer Hardness			ASTM D2240
Shore D, 15 sec, 0.125 in (3.18 mm)	80	80	
Thermal	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Annealed, 0.125 in (3.18 mm)	232 °F	111 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm)	221 °F	105 °C	
CLTE - Flow	4.0E-5 in/in/°F	7.2E-5 cm/cm/°C	ASTM D696
RTI Elec (0.04 to 0.12 in (1.0 to 3.0 mm))	221 °F	105 °C	UL 746
RTI Imp (0.04 to 0.12 in (1.0 to 3.0 mm))	221 °F	105 °C	UL 746
RTI Str (0.04 to 0.12 in (1.0 to 3.0 mm))	221 °F	105 °C	UL 746

Electrical	Typical Value (English)	Typical Value (SI)	Test Method
High Amp Arc Ignition (HAI)			UL 746
0.120 in (3.05 mm)	0.00	0.00	
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating			UL 94
> 0.04 in (> 1.0 mm)	V-0	V-0	
> 0.06 in (> 1.5 mm)	5VA	5VA	

Processing Information

Extrusion	Typical Value (English)	Typical Value (SI)
Melt Temperature	375 to 390 °F	191 to 199 °C

Notes

[1] Typical values are not to be construed as specifications.

[2] 2.0 in/min (51 mm/min)

[3] Procedure A, C.125

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