Gravi-Tech™ GRV AS-020-MN

Acrylonitrile Butadiene Styrene

Key Characteristics

Product Description			
Avient's Gravi-Tech™ polymer-metal composites offer a high-performance thermoplastic-based alternative to lead and traditional metals. Using a variety of metallic fillers, these compounds have densities similar to traditional metals, while offering design and processing flexibility.			
General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East	• Europe	
Filler / Reinforcement	• Mineral		
Features	• High Specific Gravity		
Uses	• Appliance Components • Automotive Applications • Caps	• Consumer Applications • Handles • Industrial Applications	• Metal Replacement • Sporting Goods • Weighting & Balancing
RoHS Compliance	• RoHS Compliant		
Appearance	• White		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	2.00 g/cm³	2.00 g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	5.0 to 15 g/10 min	5.0 to 15 g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (220°C/10.0 kg)	3.0 to 13 cm³/10min	3.0 to 13 cm³/10min	ISO 1133
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus (73°F (23°C))	761000 psi	5250 MPa	ISO 527-1
Tensile Stress (Break, 73°F (23°C))	5080 psi	35.0 MPa	ISO 527-2/50
Tensile Strain (Break, 73°F (23°C))	0.70 %	0.70 %	ISO 527-2/50
Flexural Modulus (73°F (23°C))	761000 psi	5250 MPa	ISO 178
Flexural Stress (73°F (23°C))	7250 psi	50.0 MPa	ISO 178
Impact	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Charpy Notched Impact Strength (73°F (23°C))	0.48 ft·lb/in²	1.0 kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
73°F (23°C)	2.4 ft·lb/in²	5.0 kJ/m²	
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating (0.06 in (1.6 mm))	HB	HB	UL 94

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	194 °F	90 °C
Drying Time	2.0 to 4.0 hr	2.0 to 4.0 hr
Processing (Melt) Temp	419 to 482 °F	215 to 250 °C
Mold Temperature	140 to 194 °F	60 to 90 °C

Notes

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

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