Trilliant™ HC HC6200-5001 XR Grey

Polyamide 12

PolyOne Corporation

Message:

The Trilliant® specialty compounds offer a complete system of specialty engineered materials, certified processes, services and technical support that enable healthcare OEM's to get to market ahead of competition. When specified, Trilliant® compound may incorporate agency rated materials that meet USP Class IV, FDA or ISO 10993 testing requirements.
This Trilliant® grade is a high density specialty compound featuring a sustainable material solution for radiation shielding and weighting & balancing applications. The composite material offers a high performance thermoplastic-based alternative to lead. This compound has densities similar to traditional metals and provides greater flexibility in design and processing.

General Information			
Features	High specific gravity Non-toxic		
Uses	Weights and balances Radiation shielding Shell Medical/nursing supplies		
Appearance	Grey		
Forms	Particle		
Processing Method	Injection molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	11.0	g/cm³	ISO 1183
Molding Shrinkage	0.40 - 0.80	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	8000	MPa	ISO 527-2/1
Tensile Stress (Break)	45.0	MPa	ISO 527-2/50
Tensile Strain (Break)	0.50 - 1.0	%	ISO 527-2/50
Flexural Modulus	10000	MPa	ISO 178
Flexural Stress	75.0	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	5.0	kJ/m²	ISO 179
Charpy Unnotched Impact Strength	10	kJ/m²	ISO 179
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, not annealed	160	°C	ISO 75-2/B
1.8 MPa, not annealed	130	°C	ISO 75-2/A
Thermal Conductivity [1]	3.0 - 3.5	W/m/K	ASTM E1461
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	< 1.0E+3	ohms	IEC 60093

Additional Information		
Shielding properties:Attenuation coefficient at 511 keV = 0.94cm-1Half Thickness at 511 keV = 0.74cm		
Injection	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	4.0	hr
Processing (Melt) Temp	230 - 280	°C
Mold Temperature	65.0 - 100	°C
NOTE		
1.	Through Plane	

Recommended distributors for this material

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