

PolyOne Trilliant™ HC HC0200-5001 XR Grey Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer , TPE

Material Notes:

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. Shielding properties: Attenuation coefficient at 511 keV = 0.83cm⁻¹ Half Thickness at 511 keV = 0.84cm Information provided by PolyOne

Order this product through the following link:

http://www.lookpolymers.com/polymer_PolyOne-Trilliant-HC-HC0200-5001-XR-Grey-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Density	8.00 g/cc	0.289 lb/in ³	ISO 1183
Linear Mold Shrinkage	0.0050 - 0.015 cm/cm	0.0050 - 0.015 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	85	85	ISO 868
Tensile Strength at Break	3.00 MPa	435 psi	ISO 37
Elongation at Break	200 %	200 %	ISO 37
Compression Set	20 - 30 %	20 - 30 %	ISO 815
	@Temperature 23.0 °C, Time 259000 sec	@Temperature 73.4 °F, Time 72.0 hour	
	80 - 90 %	80 - 90 %	ISO 815
	@Temperature 70.0 °C, Time 79200 sec	@Temperature 158 °F, Time 22.0 hour	

Thermal Properties	Metric	English	Comments
Thermal Conductivity	1.00 - 2.00 W/m-K	6.94 - 13.9 BTU-in/hr-ft ² -°F	Through Plane; ASTM E1461

Electrical Properties	Metric	English	Comments
Surface Resistance	1.00e+6 - 1.00e+9 ohm	1.00e+6 - 1.00e+9 ohm	IEC 60093

Processing Properties	Metric	English	Comments
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Melt Temperature Processing Properties	200 - 220 °C Metric	392 - 428 °F English	Comments
Mold Temperature	20.0 - 40.0 °C	68.0 - 104 °F	
Drying Temperature	80.0 °C	176 °F	
Dry Time	4.00 hour	4.00 hour	

Descriptive Properties	Value	Comments
Appearance	Grey	
Features	High Specific Gravity	
	Non-Toxic	
Forms	Pellets	
Generic Material	TPE	
Generic Name	Thermoplastic Elastomer (TPE)	
Processing Method	Injection Molding	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
Uses	Housings	
	Medical/Healthcare Applications	
	Radiation Shielding	
	Weighting & Balancing	

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