



The strength of chemicals.

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Technical Data Sheet

Preliminary

Material: Ecomass® Compound 4301ZC82

Nontoxic alternative to Lead (Pb), weighting, balancing and radiation shielding applications

Description / Features: Stainless Steel Powder Filled Polyphthalamide (PPA), Good Toughness

Processing Method: Injection Molding

Physical Properties

	Test Method	Value	Units
Physical Properties			
Product Form		Pellets	
Density	Internal	3.80	g/cc
Mechanical Properties			
Tensile Strength	ISO 527	52	Mpa
Tensile Modulus	ISO 527	12373	Mpa
Tensile Elongation at Break	ISO 527	0.6	%
Flexural Modulus	ISO 178	10149	Mpa
Izod Impact Strength, notched	ISO 180/A	6.0	KJ/m
Thermal Properties			
Heat Deflection Temperature at 66 psi	ASTM D648	N/A	°C
Heat Deflection Temperature at 264 psi	ASTM D648	N/A	°C
Electrical Properties			
Surface Resistivity		N/A	ohms/sq
Processing Information			
Melt Temperature Range		310 - 330	°C
Mold Temperature Range		65 -110	°C
Mold Shrinkage Rate	Internal	0.3 - 0.5	%
Pre-Drying Conditions		4 - 8 hrs @ 110°C, target moisture < 0.045%	

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