



# Technical Data Sheet

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**Material:** Ecomass® Compound 1700ZC89

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

**Description / Features:** High Specific Gravity, Stainless Steel Powder Filled Polyamide (PA), Rigid

**Processing Method:** Injection Molding

Physical Properties					
Test Method	English		SI		
	Value	Units	Value	Units	
<b>Physical Properties</b>					
Product Form	Pellets		Pellets		
Density	ASTM D792	4.50	g/cc	4.50	g/cc
<b>Mechanical Properties</b>					
Tensile Strength	ASTM D638	7,500	psi	52	MPa
Tensile Modulus	ASTM D638	1,500,000	psi	10,345	MPa
Tensile Elongation at Break	ASTM D638	1.25	%	1.25	%
Flexural Modulus	ASTM D790	1,200,000	psi	8,276	MPa
Flexural Strength	ASTM D790	9,500	psi	66	MPa
Izod Impact Strength, notched	ASTM D256	1.5	ft-lb/in	78	J/m
<b>Thermal Properties</b>					
Heat Deflection Temperature at 66 psi	ASTM D648	318	°F	159	°C
Heat Deflection Temperature at 264 psi	ASTM D648	311	°F	155	°C
<b>Electrical Properties</b>					
Surface Resistivity	ASTM D257	0.2	ohms/sq	0.2	ohms/sq
<b>Processing Information</b>					
Melt Temperature Range		400 - 490	°F	230 - 255	°C
Mold Temperature Range		135 - 175	°F	55 - 80	°C
Mold Shrinkage Rate	ASTM D955	0.005 - 0.006	in/in	0.5 - 0.6	%
Pre-Drying Conditions		4 hrs @ 165°F		4 hrs @ 75°C	

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