

# Ecomass® 1080ZD92

Polyamide

Ecomass Technologies

## Message:

Ecomass®1080ZD92 is a polyamide material that contains a tungsten filler. This product is available in North America and is processed by injection molding.

Ecomass®The main features of 1080ZD92 are:

Good toughness

non-toxic

General Information			
Filler / Reinforcement	Tungsten packing		
Features	High specific gravity		
	Good toughness		
	Non-toxic		
Forms	Particle		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	7.98	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow	0.60 - 0.80	%	ASTM D955
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	6580	MPa	ASTM D638
Tensile Strength	37.9	MPa	ASTM D638
Tensile Elongation (Break)	4.1	%	ASTM D638
Flexural Modulus	4650	MPa	ASTM D790
Flexural Strength	49.6	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	150	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, not annealed	121	°C	ASTM D648
1.8 MPa, not annealed	107	°C	ASTM D648
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	0.21	ohms	ASTM D257
Injection	Nominal Value	Unit	
Drying Temperature - Desiccant Dryer	73.9	°C	
Drying Time - Desiccant Dryer	4.0	hr	
Processing (Melt) Temp	204 - 254	°C	
Mold Temperature	57.2 - 85.0	°C	
Injection Rate	Moderate-Fast		

Back Pressure	0.103 - 0.172	MPa
Screw Speed	100 - 250	rpm
Clamp Tonnage	3.4 - 5.5	kN/cm <sup>2</sup>
Cushion	6.35 - 12.7	mm
Screw L/D Ratio	20.0:1.0	
Screw Compression Ratio	2.5:1.0	

#### Injection instructions

Pack (Hold) Pressure: 65 to 75% of Injection Pressure  
 Fill Time: 1.0 to 2.0 in/sec  
 Pack (Hold) Time: 10 to 15 sec  
 Cooling Time: As required  
 Feed Throat: Cooled  
 Nozzle Type: Reverse Taper  
 Check Type: Free Flow  
 Maximum Drying Temp: 200 °F  
 Dryer Dew Point: -20 to -40 °F  
 Minimum Air Flow: 0.8 to 1.0 CFM  
 Injection Pressure: As Required

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#### Recommended distributors for this material

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