

## Performance Alloys MoldStar® 90 Copper Mold Alloy

Category : Metal , Nonferrous Metal , Copper Alloy

### Material Notes:

Description: MoldStar® 90 is a beryllium-free copper alloy for the blow molding and injection molding industries as well as other industrial applications. MoldStar® 90 provides a good balance of thermal conductivity, hardness, corrosion resistance and wear. Applications: Mold Inserts Thermal Pins Mold Cores Cavities Lifters Etc. Information provided by Performance Alloys.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Performance-Alloys-MoldStar-90-Copper-Mold-Alloy.php](http://www.lookpolymers.com/polymer_Performance-Alloys-MoldStar-90-Copper-Mold-Alloy.php)

Physical Properties	Metric	English	Comments
Density	8.58 g/cc	0.310 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	311	311	3000kg
Hardness, Rockwell C	31	31	
Tensile Strength at Break	1030 MPa	150000 psi	
Tensile Strength, Yield	965 MPa	140000 psi	
Elongation at Break	5.0 %	5.0 %	in 2"
Compressive Strength	965 MPa	140000 psi	

Thermal Properties	Metric	English	Comments
CTE, linear	17.1 µm/m-°C	9.50 µin/in-°F	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Thermal Conductivity	156 W/m-K	1080 BTU-in/hr-ft <sup>2</sup> -°F	
	@Temperature 15.6 °C	@Temperature 60.0 °F	

Component Elements Properties	Metric	English	Comments
Copper, Cu	89 %	89 %	
Nickel, Ni	7.5 %	7.5 %	
Other	3.5 %	3.5 %	

Descriptive Properties	Value	Comments
Thermal diffusivity at 68°F	1.76 ft <sup>2</sup> /hr	

## **Contact Songhan Plastic Technology Co.,Ltd.**

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