

## H.C. Starck MoCu 85/15 Molybdenum-Copper Composite Material

Category : Metal , Metal Matrix Composite , Nonferrous Metal , Molybdenum Alloy , Refractory Metal

### Material Notes:

Description of Product: Molybdenum-copper composite materials are produced by copper infiltration of porous sintered molybdenum. They are available with different copper contents (15 - 35 %). A thermal conductivity over 200 W/m K is producible. Range of Application: Switching contacts for high-voltage and medium-voltage, heat sinks for passive thermal management, electrodes for erosive processing. Information provided by H.C. Starck.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_HC-Starck-MoCu-8515-Molybdenum-Copper-Composite-Material.php](http://www.lookpolymers.com/polymer_HC-Starck-MoCu-8515-Molybdenum-Copper-Composite-Material.php)

Physical Properties	Metric	English	Comments
Density	9.80 - 10.2 g/cc	0.354 - 0.368 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	140 - 180	140 - 180	2.5 mm ball
	@Load 62.5 kg	@Load 138 lb	
Tensile Strength, Ultimate	>= 320 MPa	>= 46400 psi	
Modulus of Elasticity	230 GPa	33400 ksi	

Thermal Properties	Metric	English	Comments
CTE, linear	6.20 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	3.44 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
	@Temperature 20.0 - 100 $\text{Å}^\circ\text{C}$	@Temperature 68.0 - 212 $\text{Å}^\circ\text{F}$	
	6.30 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	3.50 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
	@Temperature 20.0 - 300 $\text{Å}^\circ\text{C}$	@Temperature 68.0 - 572 $\text{Å}^\circ\text{F}$	
	6.50 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	3.61 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
	@Temperature 20.0 - 450 $\text{Å}^\circ\text{C}$	@Temperature 68.0 - 842 $\text{Å}^\circ\text{F}$	
Thermal Conductivity	>= 160 W/m-K	>= 1110 BTU-in/hr-ft <sup>2</sup> · $\text{Å}^\circ\text{F}$	

Component Elements Properties	Metric	English	Comments
Copper, Cu	13 - 17 %	13 - 17 %	
Molybdenum, Mo	83 - 87 %	83 - 87 %	

Electrical Properties	Metric	English	Comments
Volume Resistivity	0.0000042 ohm-cm	0.0000042 ohm-cm	

## Contact Songhan Plastic Technology Co.,Ltd.

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