

## Hogen Durakut H15W 68 Tungsten/32 Copper PM Metal Composite

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

### Material Notes:

RWMA Class ECM-EDMDURAKUT Copper-Tungsten and Silver-Tungsten are manufactured as electrode materials for EDM (Electrical Discharge Machining), ECM (Electro Chemical Machining) and ECD (Electro Chemical Deburring). Hogan DURAKUT materials are also manufactured by the powder metallurgy techniques of pressing, sintering and infiltrating tungsten with copper or silver. DURAKUT is produced under the same rigid manufacturing procedures and strict quality control supervision as Duralloy. This assures a high performance electrode providing greater cutting stability, excellent machinability and reduced down time. For extremely close tolerance work, Durakut holds dimensions and will not break down due to porosity and other structural deficiencies sometimes found in other Copper-Tungsten electrode alloys. DURAKUT Copper-Tungsten is well suited for machining carbide dies. Further more, it offers greater cutting stability in machining refractory metals and exotics. Tungsten alloys used for EDM and ECM applications are far superior when fine surface finishes, deep narrow slots or ribs and small precise holes are required. Tungsten alloys are preferred when matching extremely detailed sections. In the ECM process, Copper-Tungsten withstands erosive effects of short circuit malfunctions far better than other materials. Data provided by Hogen Industries.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Hogen-Durakut-H15W-68-Tungsten32-Copper-PM-Metal-Composite.php](http://www.lookpolymers.com/polymer_Hogen-Durakut-H15W-68-Tungsten32-Copper-PM-Metal-Composite.php)

Physical Properties	Metric	English	Comments
Density	>= 13.8 g/cc	>= 0.499 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell B	83	83	
Tensile Strength, Ultimate	517 MPa	75000 psi	

Thermal Properties	Metric	English	Comments
CTE, linear	10.77 $\mu\text{m/m-}^\circ\text{C}$	5.983 $\mu\text{in/in-}^\circ\text{F}$	
	@Temperature 20.0 $^\circ\text{C}$	@Temperature 68.0 $^\circ\text{F}$	
Specific Heat Capacity	0.214 J/g- $^\circ\text{C}$	0.0511 BTU/lb- $^\circ\text{F}$	
	@Temperature 20.0 $^\circ\text{C}$	@Temperature 68.0 $^\circ\text{F}$	
Thermal Conductivity	201 W/m-K	1390 BTU-in/hr-ft <sup>2</sup> - $^\circ\text{F}$	
	@Temperature 20.0 - 400 $^\circ\text{C}$	@Temperature 68.0 - 752 $^\circ\text{F}$	

Component Elements Properties	Metric	English	Comments
Copper, Cu	32 %	32 %	

Component Elements Properties	Metric	English	Comments
Tungsten, W	W	W	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00000360 ohm-cm	0.00000360 ohm-cm	

## Contact Songhan Plastic Technology Co.,Ltd.

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