

# OTHER ALLOYS

## Advamet® Copper Datasheet

Advamet® is a wax/polymer binder system;  
Compliant to MPIF Standard 35: MIM-Copper

### Typical Chemical Composition (post Sinter)

Cu (%)
99.8 -100

### Typical Particle Size Distribution

$d_{90}$
-22micron

### Typical Physical Properties

Mechanical	Density	Thermal Conductivity (@ 77°F)	UTS	YS	Elongation
Units	(g/cm <sup>3</sup> )	Btu *ft/(h*ft <sup>2</sup> * °F)	(ksi)	(ksi)	(in./in.)
As-sintered	8.75	208	30	10	30

Coefficient of Thermal Expansion	Average CTE {x10 <sup>6</sup> /°F}
From Room Temp. to 100° F	8.7
From 101 ° F to 150° F	8.9
From 151 ° F to 200° F	9.1
From 201 ° F to 250° F	9.3
From 251 ° F to 300° F	9.4

Actual results depend on processing, including sintering cycle - performed.



4511 W. 99th St.,  
Carmel, IN 46032 USA  
317-337-0441  
info@ampmim.com



# OTHER ALLOYS

## Advamet® or Advacat® CoCrMo Datasheet

Advamet® is a wax/polymer binder system;  
Advacat® is a POM based (catalytic) binder system.

### Typical Chemical Composition (post Sinter)

C (%)	Cr (%)	Fe (%)	Mn (%)	Mo (%)	Ni (%)	Si (%)	Co (%)
0.000-0.015	27.0-30.0	0.00-0.75	0.00-1.00	5.0-7.0	0.000-0.100	0.00-1.00	balance
Other elements not to exceed 1.0% combined.							
All percentages are in weight percent.							

### Typical Mechanical Properties

Nominal Typical Values	Density	UTS	YS	Elongation	Hardness
	(g/cm <sup>3</sup> )	(ksi)	(ksi)	(in./in.)	(HRC)
As-sintered Grade	8.4	123	75	20	25

Actual results depend on processing – sintering and heat treatment cycles – used.



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# OTHER ALLOYS

## Advamet® or Advacat® MIM2200

Advamet® is a wax/polymer binder system;

Advacat® is a POM based (catalytic) binder system.

Both systems are compliant to MPIF Standard 35: MIM-2200

### Typical Chemical Composition (post Sinter)

C (%)	Ni (%)	Mo (%)	Si (%)	Fe (%)
0.1 max	1.5-2.5	0.5 max	1.0 max	balance
Other elements not to exceed 1.0% combined.				
All percentages are in weight percent.				

### Typical Mechanical Properties

Nominal Typical Values	Density	UTS	YS	Elongation	Charpy unnotched impact	Apparent Hardness
	(g/cm <sup>3</sup> )	(ksi)	(ksi)	(in./in.)	(ft* lbf)	(HRB)
As-sintered	7.65	42	18	40	100	45

Actual results depend on processing – sintering and heat treatment cycles – used.



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