

**SCM Metal Products (Suzhou) Co., Ltd.**  
**元磁新型材料(苏州)有限公司**  
**TECHNICAL DATA SHEET**  
**COPPER POWDER FOR MIM**

注射成型用銅粉  
**CuM-9030**

**描述 DESCRIPTION**

With the application of copper MIM in thermal management systems, SCM (Suzhou) has successfully developed and mass-produced a high-grade copper powder for the usage, which can be sintered to above 94% theoretical density giving a microstructure very similar to that of commercial electrical grade copper C11000. Thermal conductivity of copper MIM can achieve above 290W/mK when using the high-grade powder copper.

隨著銅基注射成型技術在散熱和熱沉等領域中的應用，SCM 苏州公司已經成功開發並且量產一種高規格的銅粉以滿足這種用途，這種規格銅粉能被燒結到 94%以上的理論密度，達到與商用 C11000 號電工銅相似的微觀結構。當使用這種高規格的銅粉，MIM 產品的熱傳導率能達到 290W/mK 以上。

產品等級 Grade	特性 CHARACTERISTICS
CuM-9030	材質 C11000，球型顆粒。 C11000 grade copper, spherical particle.

**應用 APPLICATION**

This grade of copper powder is specifically designed for the manufacture of copper-base MIM products. Its uniform particle size distribution effectively avoids the segregation of the MIM feedings. At the same time, the spherical shape can give a good flow to the MIM feedings. The high tap density and increased surface energy guarantees an optimum sintered density of the finished MIM products. It's especially high purity material that offers an excellent high thermal and electrical conductivity for the finished products.

本產品是爲了生產注射成型產品而特別設計的，因其均勻的粒度分佈，有利於餵料的均勻性要求；球型的顆粒形狀能夠提供餵料的良好流動性；高的振實密度及表面活性，保證了注射成型最終燒結成品的緻密性；尤其是高的純度材質賦予了最終產品良好的熱傳導率和電傳導率。

**銅粉 Copper Powder**

**CHEMICAL PROPERTIES**

Copper, %

**SPECIFICATIONS**

99.5 mim

**TYPICAL**

99.7

Hydrogen Loss, %

0.5 max

0.1

**PHYSICAL PROPERTIES**

Grade : CuM-9030

Apparent Density, g/cm<sup>3</sup>

3.3 mim

3.4

Tap Density, g/cm<sup>3</sup>

4.4 mim

4.5

Particle Size Distribution, (μm)

D90

35 max

31

D50

22 max

20

D10

12 max

9

Electrical conductivity %IACS (Sintered parts spec.)

80 mim

81

Thermal conductivity (W/mK) (Sintered parts spec.)

290 mim

300

**物質安全資料 MATERIAL SAFETY DATA**

使用前、敬請先參閱 MSDS (See MSDS before using this product.)

**樣品 和 服務 SAMPLES AND SERVICES**

For further information or sample quantities for test, contact our Customer Service Department or visit our website at [www.scmmetals.com](http://www.scmmetals.com)  
我們會很高興的提供進一步的技術諮詢和樣品服務，懇請與我們的客戶服務部門聯繫，和拜訪我們的網站 [www.scmmetals.com.cn](http://www.scmmetals.com.cn)

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