MecoFill®
Conductive Fillers

Brazel Technology
Advanced Materials

conductive fillers : silver coated glass : flakes

Silver coated glass flakes

Mecofill® silver coated glass flakes are highly electrically conductive additives.

The high aspect ratio of the flakes enables an excellent particle contact even at low filler loadings. This enables an effective electrical conductivity network throughout the end product.

The use of thin glass flakes as chemically inert substrate makes it possible to reduce strongly the portion of expensive silver and to minimize the density of the end product. They therefore represent an economical alternative to pure silver.

These factors can cause enormous cost savings in the final product.

Applications

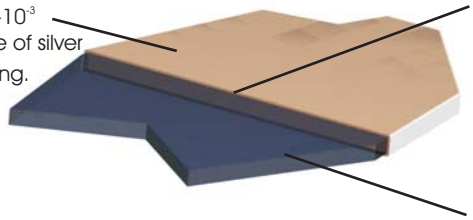
EMI/RMI shielding
electrostatic discharge
PTF pastes
conductive inks
conductive adhesives
conductive TPE

The silver coating is applied by a unique process that ensures excellent adhesion and uniformity of the silver film. Particle size distribution and the percentage of silver in the powder can be adjusted to meet the customer requirements.

Properties

Silver
Using pure silver as a coating results in low end product resistivity.
The resistivity values range between 10^{-1}-10^{-3} ohm-cm, depending on the percentage of silver and the amount of Mecofill® used for filling.

Example:
MecoFill SG3-20008
42% by weight in Epoxy
0,5 ohm/sq/mil (1,25 mohm-cm)



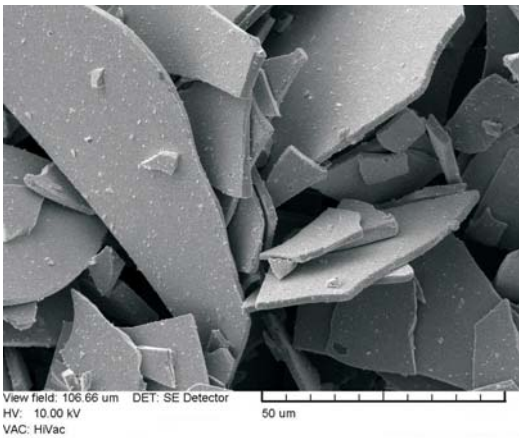
Adhesion
A specially designed coating process ensures an excellent adhesion of the silver coating to the glass surface.

Glass flakes
Chemically inert borosilicate glass tolerates highest temperatures while simultaneously reducing the filler density. The reproductible particle size distribution creates the base for an optimum conductivity network and uniform end product quality.

Quality control

MecoFill® products are subjected to a series of different QC checks In order to ensure that each lot meets our established specifications

- ✓ Powder resistivity
- ✓ Percent silver [%]
- ✓ Silver adhesion
- ✓ Color
- ✓ Density (true + Scott)
- ✓ Particel size distribution



Mecofill SG3-20003

Visit our web site:
www.brazel.com

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Product types

Produkt #	Percent silver [%]	Powder-resistivity [mohm-cm]	Particle size distrib. [µm]			True density [g/cm³]	Scott apparent dens. [g/cm³]
			D10	D90	Mean		
SG3-20003	12	4,0	10	50	23	2,5	1,34
SG3-20005	20	3,9	10	50	23	2,6	1,28
SG3-20008	33	1,9	10	50	23	2,6	1,34

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