

CONDUCTOSPHERES™

Silver

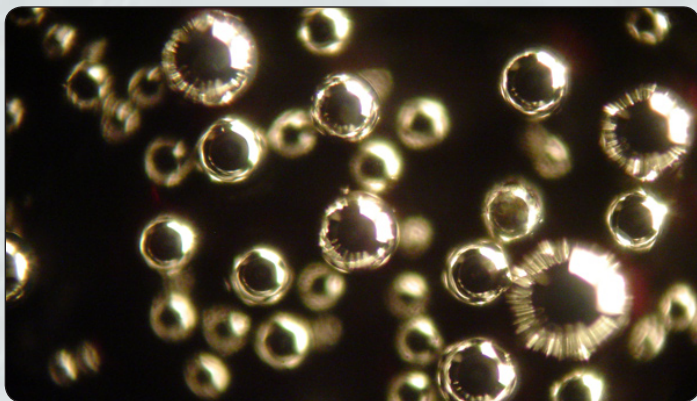
CONDUCTOSPHERES are a range of lightweight conductive fillers consisting of hollow glass microspheres coated with a thin layer of metal.

They can be incorporated into coatings, composites and adhesives to provide these materials with electrical conductivity and shield against electromagnetic interference (EMI).

Due to their hollow core, CONDUCTOSPHERES have very low particle densities and so provide significant weight reductions over conventional solid metal fillers.

CONDUCTOSPHERES Silver products offer the highest conductivity and stability, and are available with a range of particle sizes and densities.

Custom products are available where the properties of the CONDUCTOSPHERES can be tailored to meet the customer's specifications.

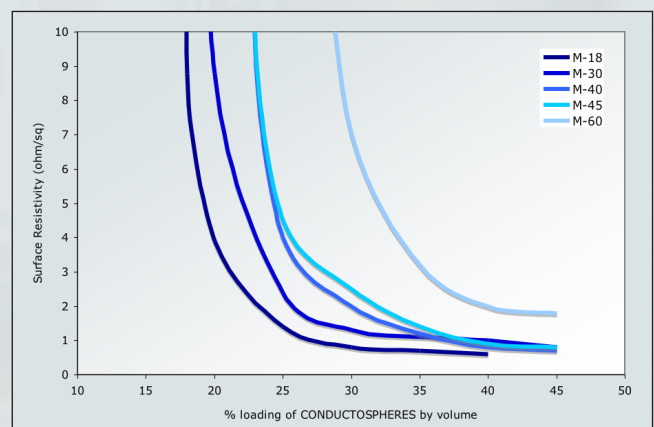


Product	Particle size range (µm)	True particle density (g/cm ³)
M-18-AG	5-30	0.72
M-30-AG	10-45	0.65
M-40-AG	15-70	0.46
M-45-AG	15-80	0.32
M-60-AG	25-120	0.16

CONDUCTOSPHERES Silver incorporated into a resin at 50% by volume will typically produce a composite with a density of 0.6-0.9 g/cm³ and a volume resistivity of < 0.1 Ω·cm.

The surface resistivity of coatings containing CONDUCTOSPHERES Silver is typically about 1 Ω/sq. The graph below shows that the percolation threshold is reached at loadings of 20-30% by volume.

Surface resistivity of coatings containing CONDUCTOSPHERES Silver



CONDUCTOSPHERES were loaded into a polyurethane resin and applied at a wet thickness of 150 µm. The surface resistivity was measured using a modification of ASTM D-257.

CONDUCTOSPHERES Nickel products are also available from Microsphere Technology.