



Commercial Powder

Metal Group – **COPPER**
Catalogue No. – **SST-C0075**



Description:

A general purpose copper blend including aluminum and alumina particles with fast deposition build-up speed. The blend particle size distribution is especially tailored for the cold spray process, with applications in copper-based component repair. The coating presents full density, good bonding strength, and excellent machinability.

Specifications:

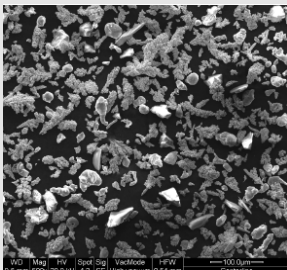
Material Properties

Composition:	Cu 99.7% Min., Al 99.5% Min., Al₂O₃ 92% Min.
Particle Size:	-45 to +5 µm
Characteristics:	Irregular shaped particles for maximum velocity.

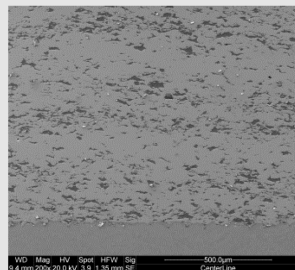
Typical Coating Properties

	<u>Series P</u>	<u>Series EP</u>
Bond Strength:	> 3000 psi	> 5500 psi
Deposition Efficiency:	Up to 45%	Up to 60%
Deposition Rate:	Up to 8 g/min	Up to 53 g/min
Hardness (Brinell):	90 – 95	105 – 115
Density:	> 99.5%	> 99.5%

Typical Micrograph



SST-C0075 Powder



SST-C0075 Coating on Steel
(Series EP)

Recommended Spray Parameters

(When utilizing CenterLine Cold Spray equipment. Recommendations may not apply when making use of non-CenterLine equipment)

	<u>Series P</u>	<u>Series EP</u>
Temperature:	350– 550°C	350 – 550°C
Pressure:	100 – 250 psi	100 – 500 psi
Powder Pre-heating:	N/A	N/A
Standoff Distance:	10 – 25 mm	10 – 40 mm
Gas:	Compressed air or nitrogen	
Feed Rate (gram/min.):	12 – 25	12 – 95
Gun Traverse Speed:	10 – 300 mm/s depending on process settings and target coating thickness	
Surface Preparation:	SST-G0002 commercial blast	
Spray Nozzle:	UltiLife™	

Ordering

Catalogue Number:	SST-C0075
Standard Packaging:	400 ml or 1 gallon sized container
Selling Unit:	Pound
Material Certification:	Available upon request

To discuss your Cold Spray Application(s) or for more information about powders and blends, please contact your CenterLine SST representative or visit our website at www.supersonicspray.com