



Commercial Powder

Metal Group – TIN
Catalogue No. – SST-S6001



Description:

A pure tin powder especially created for the cold spray process. Surface hardness is typically **HB: 14 – 15** and the adhesion on Copper results in a **1000 psi bonding strength**. Used primarily for corrosion protection and for creating electrically conductive elements.

Specifications:

Material Properties

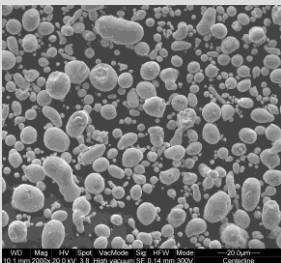
Composition: **Sn 99.7% Min.**
Particle Size: **-45 to +5 µm**
Characteristics: **Spherical Shape**

Typical Coating Properties

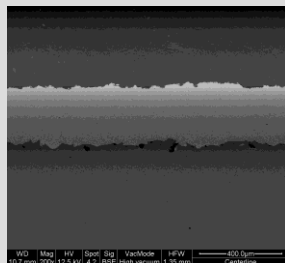
Bond Strength*: **> 1000 psi (on Cu)**
Hardness (Brinell): **14 – 15**
Density: **> 99.5%**
Deposition Efficiency: **Up to 10%**
Deposition Rate: **Up to 3 g/min**

**Higher bond strengths can be achieved. Please consult with CenterLine to receive assistance in optimizing the spray parameters.*

Typical Micrograph



SST-S6001 Powder



SST-S6001 Coating on Copper
(Series P)

Spray Parameter Ranges

Spray parameters only apply to CenterLine Cold Spray equipment.

Series P/PX

Temperature: **175 – 225°C**
Pressure: **85 – 120 psi**
Powder Pre-heating: **N/A**
Standoff Distance: **10 – 25 mm**
Gas: **Compressed air or Nitrogen**
Feed Rate (gram/min): **12 – 25**
Gun Traverse Speed: **10 – 300 mm/s depending on process settings and target coating thickness**
Surface Preparation: **SST-G0002 commercial blast**
Spray Nozzle: **UltiFlow™**

Ordering

Catalogue Number: **SST-S6001**
Standard Packaging: **400 ml or 1 gallon sized container**
Selling Unit: **Pound**
Material Certification: **Available upon request**

To discuss your Cold Spray Application(s), including the optimization of spray parameters for higher coating bond strengths, or for more information about powders and blends, please contact your CenterLine SST representative or visit our website at www.supersonicspray.com.