



Commercial Powder

Metal Group – **ALUMINUM**
Catalogue No. – **SST-A5012**



Description:

Aluminum Alloy powder (Al6061, SST Catalog No. SST-A5012) with special particle size distribution for cold spray processes, it is suitable for applications in salvage and restoration of aluminum components. Cold spray coating presents high density, excellent bonding strength on Al6061 substrate, and good machinability.

Specifications:

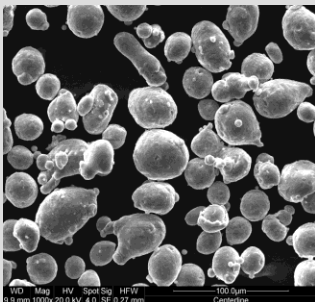
Material Properties

Composition:	Si 0.4 - 0.8%, Mg 0.8 - 1.2%, Cu 0.15 - 0.4%, Fe 0.7% Max., Cr 0.35% Max., Zn 0.25% Max., Ti 0.15% Max., Mn 0.15% Max., other 0.15% Max., Al Bla.
Particle Size:	-45 to +5 µm
Characteristics:	Spherical particles

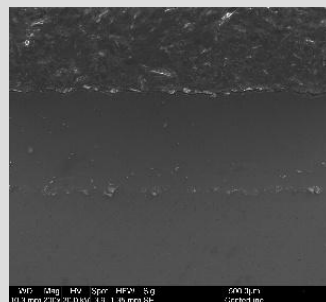
Typical Coating Properties

Bond Strength*:	> 10000 psi
Hardness (Brinell):	76 – 86
Density:	> 99%
Deposition Efficiency:	Up to 7%
Deposition Rate:	Up to 3.5 g/min

Typical Micrograph



SST-A5012 Powder



SST-A5012 Coating on Al6061
(Series EP)

Spray Parameter Ranges

Spray parameters only apply to CenterLine Cold Spray equipment.

Series EP/EPX

Temperature:	450 – 500°C
Pressure:	450 – 500 psi
Standoff Distance:	10 – 40 mm
Gas:	Nitrogen
Feed Rate (gram/min):	12 – 50
Gun Traverse Speed:	5 – 100 mm/s depending on process settings and target coating thickness
Surface Preparation:	SST-G0002 commercial blast or grease free as-machined surface
Spray Nozzle:	UltiFlow™

Ordering

Catalogue Number:	SST-A5012
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.