



Commercial Powder

Metal Group – Aluminum
Catalogue No. – **SST-A0082**



Description:

A general purpose aluminum-based blend of aluminum and high purity alumina particles with good deposition growth rate, smooth surface and high bonding strength on Mg and Al alloys. The blend particle size distribution is specially tailored for the cold spray process, suitable for repairing a variety of aluminum and magnesium parts. The coating presents full density, excellent bonding strength, excellent machinability and excellent corrosion resistance.

Specifications:

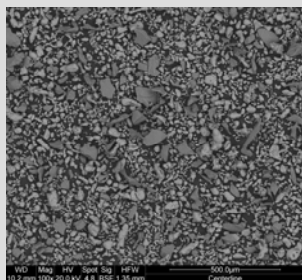
Material Properties

Composition: Al 99.5% min, Al₂O₃ 99.0% min
Particle Size: -75 to +5 µm
Characteristics: Irregular shaped particles for maximum velocity.

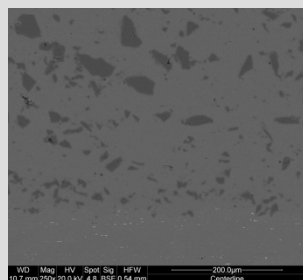
Typical Coating Properties

	Series P	Series EP
Bond Strength:	> 8200 psi	> 9200 psi
Deposition Efficiency:	Up to 16%	Up to 36%
Deposition Rate:	Up to 4 g/min	Up to 30 g/min
Hardness (Brinell):	57-62	60-63
Density :	>99.5%	>99.5%

Typical Micrograph



A0082 Powder



A0082 Coating on Al6061
(Series EP)

Recommended Spray Parameters

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

	Series P	Series EP
Temperature:	300 – 500°C	300 – 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 – 20	12 – 85
Gun Traverse Speed:	10 – 500 mm/s depending on process settings and target coating thickness	
Surface Preparation:	SST-G0002 commercial blast	

Spray Nozzle: UltiLife™

Ordering

Catalogue Number: **SST-A0082**
Standard Packaging: **400 ml or 1 Gallon**
Selling Unit: **pounds**
Material Cert: **available upon request**

For more information about other powders and blends, please contact your CenterLine SST representative or visit our website at www.supersonicspray.com.