



Commercial Powder

Metal Group – Aluminum
 Catalogue No. – **SST-A0081**



Description:

A general purpose aluminum-based blend of aluminum and alumina particles with fast deposition build-up speed. The blend particle size distribution is specially tailored for the cold spray process and the applications requiring superior bonding strength, suitable for repairing a variety of aluminum and magnesium components and for freeform fabrication. The coating presents full density, excellent bonding strength, excellent machinability and good corrosion resistance.

Specifications:

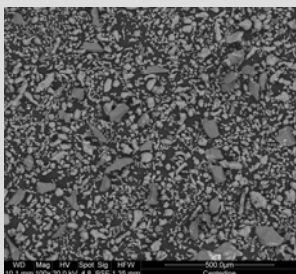
Material Properties

Composition: Al 99.5% min, Al₂O₃ 92% min
 Particle Size: -75 to +5 µm
 Characteristics: Irregular shaped particles for maximum velocity.

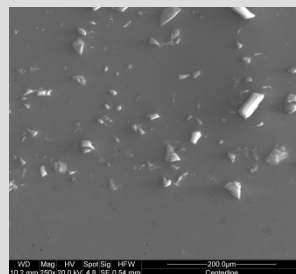
Typical Coating Properties

	Series P	Series EP
Bond Strength:	> 7100 psi	> 8500 psi
Deposition Efficiency:	Up to 19%	Up to 39%
Deposition Rate:	Up to 5 g/min	Up to 30 g/min
Hardness (Brinell):	52 – 60	58 – 64
Density :	>99.5%	>99.5%

Typical Micrograph



A0081 Powder



A0081 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-A0081**
 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.