Atomized Aluminum-Silicon Powder Suitable for use with Thermal Spray

Combustion Equipment

AluTec[®] 29210



- Ideal for corrosion control on steel structures, duct-work and pipes
- For use with TeroDyn System 2000 and 3000
- May be used for dimensional restoration of aluminum and magnesium parts



DESCRIPTION:

AluTec 29210 is an atomized Aluminum - Silicon alloy powder suitable for coating application using combustion thermal spray equipment such as the TeroDyn®2000 or TeroDyn 3000 Systems. It can be used for corrosion control on steel structures and duct work and pipes. It can be used instead of 29220 where a machined finish and higher hardness are desired for dimensional restoration of aluminum and magnesium parts. 29210 is not self bonding. It requires an SSPC 5 blast finish using an angular aluminum oxide or chilled iron grit. A 24 to 40 grit size is usually capable of producing the 1 - 3 mil blast profile which is required for good mechanical bonding to the base material (a nickel alloy bond coat could be used if desired). Avoid use in strong Acids or Caustics. For best results seal coating with SealTec®-LT or RotoGuard® Solution.

TECHNICAL DATA:

Powder Properties

Nominal Particle Size: -106 micon +45 micron

Hall Flow Rate: 60 seconds Bulk Density: 1.4 q/cc

Powder Coverage: 0.015 lbs/ft² @ 0.001 inch thickness

Coating Properties

Typical Hardness: Rockwell RH 90

Maximum Service Temperature: 750°F (405°C)

Thickness Limit: 0.125" Density: 2.3 q/cc

Approximate Melting Point: 1060°F (573°C)

TYPICAL APPLICATIONS:

- Shafts
- Casings
- Pumps
- Blower housings

RECOMMENDED COATING AND SPRAY PARAMETERS:

TD 2000	Acetylene Fuel
Nozzle	LT 250
LT Air Shroud	5 psi
Module Adaptor	Red/Yellow
Oxygen	50 psi / 28 flow
Acetylene	12 psi / 48 flow
T-Valve Setting	6 clicks
Coating Rate	5 lbs/hr
Spray Distance	7-9 inches

TD 2000	Propylene Fuel
Nozzle	LT 260P
LT Air Shroud	30 psi
Module Adaptor	Red/Yellow
Oxygen	80 psi / 48 flow
Propylene*	30 psi / 48 flow
T-Valve Setting	10 clicks
Coating Rate	8 lbs/hr
Spray Distance	8-10 inches

^{*} Use Linde grade FG-2 or equivalent

TD 3000		
Nozzle	LR 210W	
Rotojet	RPA-3@ 50 psi	
Oxygen	50 psi / 34 flow	
Acetylene	12 psi / 54 flow	
Carrier Gas (Ar or Nit.)	55 psi / 40 flow	
Terometer**	100	
Coating Rate	15 lbs/hr	
Air Vibrator	20 psi	
Spray Distance	6-8 inches	

^{**}Use slotted pick-up tube and a 12 foot black powder feed hose.

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EUTECTIC CORPORATION

N94 W14355 Garwin Mace Drive Menomonee Falls, WI 53051 USA Tel.: +1 (800) 558-8524 eutectic.com

EUTECTIC CANADA

428, rue Aimé-Vincent Vaudreuil-Dorion, Québec J7V 5V5 Canada Tel.: +1 (800) 361-9439 eutertic ca

