

Tungsten Carbide-Cobalt and Nickel Alloy Blended Powder

Eutectic[®] 29123

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- Ideal for chutes and induced draft fan blades
- Designed to resist fine particle abrasion and erosion
- Suited for use with cold spray and non tranferred arc processes

Eutectic[®] 29123

Eutectic 29123 is a blend of agglomerated tungsten carbide/ cobalt and atomized Nickel alloy powder. It has been specifically designed to provide resistance to fine particle abrasion and erosion. Coatings of 29123 are ideally suited for utility boiler coal chutes and induced draft fan blades. The TeroDyn[®] 2000, TeroDyn[®] 3000, CDS8000 Systems as well as Non-transferred Plasma Arc can be used to apply 29123 powder. A bond coat is required to ensure good adhesion to the base metal. Eutectic 21021, 21031 or 18995 are the alloys preferred for bond coating in most applications.

TECHNICAL DATA

Typical Coating Properties

Macro-Hardness:	Rockwell C Scale, 50					
Micro-Hardness of Carbide:	Rockwell C Scale, 75					
Density:	11 g/cc (Terodyn Systems) 11.3 g/cc (Plasma Systems)					
Max Service Temperature:	1200°F (649°C)					
Typical Powder Properites						
Hall Flow Rate:	12.9 seconds					
Bulk Density:	5.2 g/cc					
Powder Coverage:	0.071 lbs/ft ² @ 0.001"					

PROCEDURE FOR USE

Use of Eutectic 29123 in the as-sprayed condition is recommended. If finishing is necessary, please use the following guidlines...

Finishing Procedures

					Traverse Speed	In-Feed
	Gr Grit Grad	inding Wheel Type: Gr Size: 60 - 80 e: H (soft)	een Silicon Carbide	Roughing	5 - 15 inches per minute	0.001 inches per pass
	Struct Bond Ty	ure: 5 pe: Vitrified		Finishing	3 - 8 inches per minute	0.0005 inches per pass or less
	Wheel Sp Work Spee Coolant: Flo	eed: Use Manufacture ed: 50 - 65 surface feet od coolant with rust i	per minute per minute nhibitors in 2 - 5% concen	tration		
N 1. 2. F	otes: Before grinding, requently dress t	all edges and ends of coating he grinding wheel face to redu	must be chamfer ground. Ice friction and heat.			
Red	commend	ed Parameters				
Nozzle RotoJet: Module Oxygen: Acetylene: Spray Rate: Spray Distar Coating Effic	ioo : : Adaptor: nce: :iency:	RL 210 RPA 1 @ 50 psi Yellow/Red 50 psi / 38 flow 12 psi / 60 flow 8 lbs/hr 3 to 4 inches 85%		1	YPICAL A	PPLICATIC
TD 3000 Nozzle: RotoJet: Oxygen: Acetylene: Terometer: Carrier Flow: Spray Rate: Spray Distance: Deposit Efficiency:		RL 210W RPA-3 @ 30 psi 50 psi / 34 flow 12 psi / 54 flow 105 40 7 lbs/hr 6 to 8 inches 80%		•	Fan Blades Coal Chutes Pump Housings	• Polishing Fixtu • Drilling Fixtu • Grain Chutes
CDS 8000 Oxygen 4 bar: Acetylene 0.7 bar: Air 0.7 bar: lame Setting: lodule Adaptor: Rotation: vance in Rev.: ay Distance:	60 psi 10 psi 10 psi Neutral 4 65 SFPM 0.1 8 inches		Observe normal spraying pr Publications AWS C2. 1-73, " and Application." Thermal sj me familiar with local safety material supplied, before yc Safety Data Sheet (MSDS) in	actices, respiratory Recommended Saf praying is a comple regulations before pu have thorough formation. DISREG	protection and proper air flov e Practices for Thermal Sprayin tely safe process when perfor starting spray operations.DO read the equipment instructi ARDING THESE INSTRUCTIONS	v pattern advised. For general spr g and AWS TSS-85, "Thermal Spra med in accordance with proper s NOT operate your spraying equip ion manual. Refer to the Eutectic MAY BE HAZARDOUS TO YOUR H



Air 0.7 bar: Flame Setting: Module Adaptor: Vc Rotation: Advance in Rev.: Spray Distance:

> **Eutectic Corporation:** N94 W14355 Garwin Mace Dr. Menomonee Falls WI, 53051 USA +1 800. 558. 8524 • eutectic.com

Eutectic Canada:

428, rue Aimé-Vincent Vaudreuil-Dorion, Québec J7V 5V5 Canada +1 800. 361. 9439 • eutectic.ca



