



High Performance, Atomized
Nickel-Alloy Powder

Eutectic®

13494



- Extremely durable coatings with a variety of uses
- Controlled composition based on AWS A5.13
- Precise particle sizing ensures coating consistency

Eutectic® 13494

Eutectic 13494 is a high performance atomized nickel alloy powder optimized to produce a durable, abrasion, and friction resistant machinable coating using the TeroDyn® thermal spray process equipment. Controlled composition based on AWS A5.13 and precise particle sizing ensures consistent deposition, fusing and hardness.

TECHNICAL DATA

Typical Powder Properties

Melting Range:	Solidus: 1780°F (971°C)
	Liquidus: 2120°F (1160°C)
	Furnace Fusing: 2150°F (1177°C)
Hall Flow Rate:	17 seconds
Bulk Density:	4.0 g/cc
Powder Coverage:	0.042 lbs/ft² @ 0.001"

Typical Coating Properties

Macro Hardness:	39 HRC
Density:	7.6 g/cc
Shrinkage on Fusing:	17-20%

PROCEDURE FOR USE

Grinding Wheel Type: Green Silicon Carbide
Grit Size: 60 - 80
Grade: H (soft)
Structure: 5
Bond Type: Vitrified
Wheel Speed: Use Manufacturer's Recommendation
Work Speed: 50 -65 surface feet per minute
Coolant: Flood coolant with rust inhibitors in 2-5% concentration

	Traverse Speed	In-Feed
Roughing	5-15 inches per minute	0.001 inches per pass
Finishing	3-8 inches per minute	0.0005 inches per pass or less

Notes: 1. Before grinding, all edges and ends of coating must be chamfer ground.
2. Frequently dress the grinding wheel face to reduce friction and heat.

TD 2000

Nozzle: RL 200
RotoJet: RPA 3 @ 15 psi air
Module Adaptor: Yellow/Red
Oxygen: 50 psi / 30 flow (FM-1 flowmeter)
Acetylene: 12 psi / 60 flow (FM-1 flowmeter)
T-Valve Setting: 20 clicks
Coating Rate: 24.0 lb/hr
Deposit Efficiency: 90%
Spray Distance: 6 to 8 inches

TD 3000

Nozzle: RL 200
Oxygen: 50 psi / 32 flow
Acetylene: 12 psi / 48 flow
Carrier Gas: Nitrogen @ 55 psi
Terometer: 130
Coating Rate: 20 lb/hr
Spray Distance: 6 to 8 inches
Deposit Effic.: 90%

TYPICAL APPLICATIONS

- Baffle plates
- Thrust collars
- Steam nozzles
- Armature shafts
- Muller mixer shafts

Observe normal spraying practices, respiratory protection and proper air flow pattern advised. For general spray practices, see AWS Publications AWS C2.1-73, "Recommended Safe Practices for Thermal Spraying and AWS TSS-85, "Thermal Spraying, Practice, Theory and Application." Thermal spraying is a completely safe process when performed in accordance with proper safety measures. Become familiar with local safety regulations before starting spray operations. DO NOT operate your spraying equipment or use the spray material supplied, before you have thoroughly read the equipment instruction manual. Refer to the Eutectic website for Material Safety Data Sheet (MSDS) information. DISREGARDING THESE INSTRUCTIONS MAY BE HAZARDOUS TO YOUR HEALTH.



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