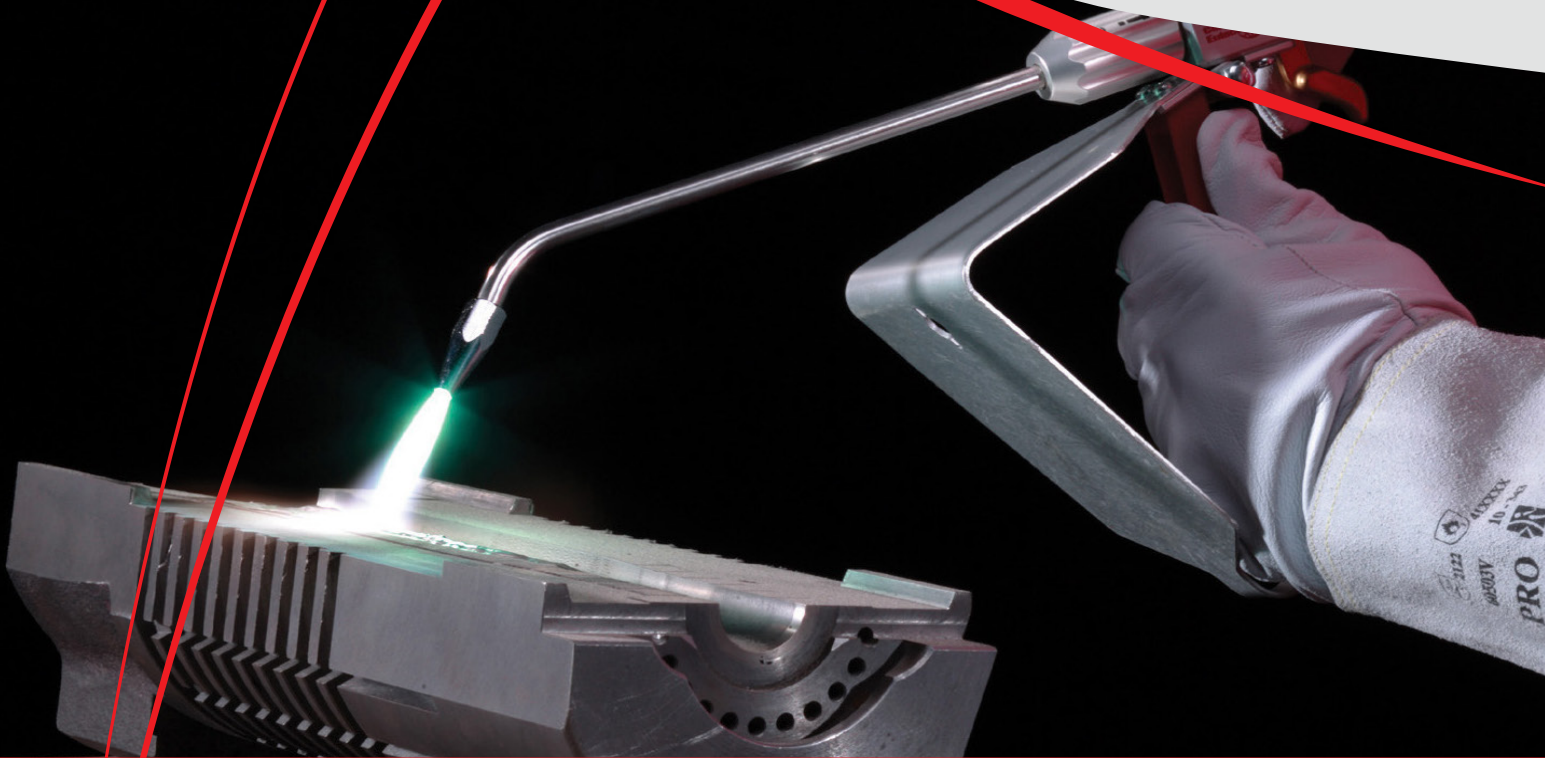




Hot Process, Multi-Component,
Nickel-Base Alloy Powder

Eutalloy®

CPM 1249



- Designed for the Spray and Fuse process
- Carbide particles are sized to provide resistance to fine and coarse abrasive particulate
- Excellent for use on steels, stainless steels, cast irons and nickel-base alloys
- Excellent resistance to abrasion, friction, erosion, cavitation and fretting

TECHNICAL DATA

Eutalloy® CPM 1249

Eutectic 1249 is a multi-component nickel-base alloy powder blend containing carbide particles. It is a hot process powder designed to be applied and fused using the Eutalloy type thermal spray process. Suitable for use on steels, stainless steels, cast irons and nickel-base alloys that are subject to severe abrasive wear. Coatings are hard and smooth as applied. They resist abrasion, friction, erosion, cavitation, and fretting. It will not peel or scale when exposed to elevated temperatures. The carbide particles are sized to provide optimal resistance to both fine and coarse abrasive particles. Coatings can be put in service as deposited or finished by grinding and polishing.

Typical Powder Properties

Hall Flow Rate:	12 seconds
Bulk Density:	5.5 g/cc
Powder Coverage:	1 lbs/50 in ² @ 1/16"

Typical Coating Properties

Hardness:	60 HRC
Hot Hardness:	Up to 1000°F (538°C)
Micro Hardness:	Knoop of Tungsten Carbide, +1900
Density:	10.0 g/cc
Wear Resistance (ASTM G-65 Schedule A volume loss):	10-55 mm ³

Nominal Composition: Tungsten, Nickel, Chromium, Boron, Silicon, Iron, Carbon

PROCEDURE FOR USE

For Roughing

Grinding Wheel Type: Green Silicon Carbide
Grit Size: 60 - 120
Grade: I - L
Structure: 5 - 6 - 7
Bond Type: Vitriified
Wheel Speed: 6500 ft. per minute
In-Feed: 0.001 inches per pass

For Finishing

Grinding Wheel Type: Aluminum Oxide
Grit Size: 120 or finer Concentration
Grade: I - L
Structure: 7 - 8 - 9
Bond Type: Vitriified
Wheel Speed: 6500 ft. per minute
In Feed: 0.0005 inches per pass

FEPA std.

Grinding Wheel Type: Diamond D151
Grit Size: 75
Grade: ---
Structure: ---
Bond Type: Metal
Wheel Speed: 18 - 22 meter/min.
In-Feed: 0.001 inches per pass
Finishing: 0.0005 inches per pass

Coolant

Flood coolant with rust inhibitors in 2-5% concentration.

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.

TYPICAL APPLICATIONS

- Auger Points
- Conveyor Chains
- Coal Feeder Screws
- Pug Mill Knives
- Mixer Blades
- Fly Ash Chutes
- Plow Discs and Harrows
- Coal Pulverizers
- Sand Slinger Cups
- Post Hole Diggers
- Debarker Knives
- Wear Plates
- Drill Bits

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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