

Hot Process, Multi-Component, Nickel-Based Alloy Powder Containing Carbide Particles

Eutalloy[®] 10112

• 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-based alloys
- Excellent resistance to abrasion, friction, erosion, cavitation and fretting

Eutalloy[®] 10112

Eutalloy 10112 is a multi-component nickel-based 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-based alloys that are subject to severe abrasive wear. Coatings are hard and smooth as applied. They resist abrasion, friction, erosion, cavitation, and fretting. The coating 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.

TECHNICAL DATA

Typical Coating Properties	
Matrix Hardness:	HRC 60
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 - 15 mm³
Typical Powder Properites	
Nominal Composition:	Tungsten, Nickel, Chromium, Boron, Silicon, Iron, Carbon
Hall Flow Rate:	12 seconds
Bulk Density:	5.5 g/cc
Powder Coverage:	1 lb per 50 in² @ 1/16"

PROCEDURE FOR USE

For Roughing:

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

Finishing: 0.0005 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: Vitrified Wheel Speed: 6500 ft. per minute In-Feed: 0.001 inches per pass Finishing: 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.

Castolin Eutectic

Eutectic Castolin

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. 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.

Plow Discs and Harrows

Auger Points

• Coveyor Chains

• Pug Mill Knives

Mixer Blades

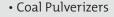
• Fly Ash Chutes

Coal Feed Screws

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





- Sand Slinger Cups
- Post Hole Diggers
- Debarker Knives
- Wear Plates
- Drill Bits

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TYPICAL APPLICATIONS