

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

Eutalloy® 10112



COATING

- 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



DESCRIPTION:

Eutalloy 10112 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.

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

FINISHING PROCEDURE:

Grinding Wheel Type:	Green Silicon Carbide (For roughing)	Aluminum Oxide (For finishing)	Diamond D151 (FEPA std)
Grit Size:	60 - 120	120 or finer Concentration	75
Grade:	I - L	I - L	-----
Structure:	5 - 6 - 7	7 - 8 - 9	-----
Bond Type:	Vitrified	Vitrified	Metal
Wheel Speed:	6500 ft per minute	6500 ft per minute	18 - 22 meter/min
In-Feed:	Roughing: 0.001 inches per pass Finishing: 0.0005 inches per pass or less		
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.

TECHNICAL DATA:

Powder Properties

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"

Coating Properties

Typical Matrix Hardness: 60 HRC
Typical Hot Hardness: Up to 1000°F
Typical Micro Hardness: Knoop of Tungsten Carbide, +1900
Density: 10.0 g/cc
Wear Resistance (ASTM G-65 Schedule A volume loss) 10-15 mm³

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