

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.

## HEALTH & SAFETY:

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 web site for Material Safety Data Sheet (MSDS) information. DISREGARDING THESE INSTRUCTIONS MAY BE HAZARDOUS TO YOUR HEALTH

## 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 in<sup>2</sup> @ 1/16"

### Coating Properties

Hardness: Rockwell C scale: 60  
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 mm<sup>3</sup>

## YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



**Eutectic Corporation**  
N94 W14355 Garwin Mace Drive  
Menomonee Falls, WI 53051 USA  
P 800-558-8524 • F 262-255-5542  
[www.eutectic.com](http://www.eutectic.com)

**Eutectic Canada**  
428, rue Aime Vincent  
Vaudreuil-Dorion, Quebec J7V 5V5  
Phone: (800) 361-9439  
Fax: (514) 695-8793  
[www.eutectic-na.com](http://www.eutectic-na.com)



**KM WELDCO SDN BHD** (1504932-M)  
No.46, Jalan Apollo U5/191,  
Bandar Pinggiran Subang, Seksyen U5,  
40150 Shah Alam, Selangor D.E., Malaysia.  
Tel: +603 - 7490 2031  
website: [www.kmweldo.com.my](http://www.kmweldo.com.my)  
email: [enquiry@kmweldo.com.my](mailto:enquiry@kmweldo.com.my)

Statement of Liability: Due to variations inherent in specific applications, the technical information contained herein, including any information as to suggested product applications or results, is presented without representation or warranty, expressed or implied. Without limitation, there are no warranties of merchantability or of fitness for a particular purpose. Each process and application must be fully evaluated by the user in all respects, including suitability, compliance with applicable law and non-infringement of the rights of others, and Eutectic Corporation and its affiliates shall have no liability in respect thereof.