

Gas Atomized, Nickel Alloy Powder for the Plasma Transferred Arc (PTA) Process

# EuTroLoy® 16496



## COATING

- Specially developed for the plasma transferred arc process
- Spherically shaped to ensure highest purity
- Consistent powder distribution through equipment
- Abrasion and friction resistant coatings



## DESCRIPTION:

Eutectic 16496 is a high performance atomized nickel alloy powder optimized to produce hard, durable, abrasion, and friction resistant coatings using the Eutronic® GAP Plasma Transferred Arc Welding Process. Controlled composition based on AWS A5.13 and precise particle sizing ensures consistent, porosity free weld deposition.

## TECHNICAL DATA:

Hardness: Rockwell C scale: 59

Density: 7.8 g/cc

Maximum Service Temperature: 1000°F (538°C)

ASTM G-65 Wear Test Volume Loss: 28 mm<sup>3</sup>

Hall Flow Rate: 17 seconds

Bulk Density: 4 g/cc

## Nominal Composition:

Nickel, Chromium, Boron, Silicon, Iron, Carbon

## PROCEDURE FOR FINISHING:

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

Traverse Speed

Roughing: 5-15 inches per minute

Finishing: 3-8 inches per minute

In-Feed

Roughing: 0.001 inches per pass

Finishing: 0.0005 inches per pass or less

Use 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.

## APPLICATIONS:

- Shafts
- Extrusion screws
- Sleeves
- Rotors

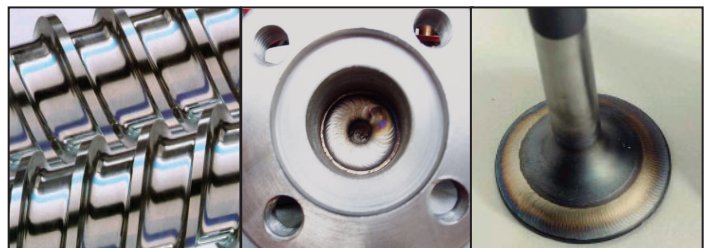
## EQUIPMENT:

Made for use in Eutectic's GAP plasma transferred arc equipment. Please contact Eutectic to determine which GAP equipment is right for your coating needs.

## 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



Eutectic Castolin develops and manufactures PTA welding units and accessories in various models and sizes either as standard units or as special developments. Our team of technicians will be able to design with you the cost effective and tailor made solution that fits your specific application. From power source to feed unit, welding torch, even handling devices or robots when required, we take care of all the details.

## YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



### EUTECTIC CORPORATION

N94 W14355 Garwin Mace Drive  
Menomonee Falls, WI 53051 USA  
Tel.: +1 (800) 558-8524  
eutectic.com

### EUTECTIC CANADA

428, rue Aimé-Vincent  
Vaudreuil-Dorion, Québec  
J7V 5V5 Canada  
Tel.: +1 (800) 361-9439  
eutectic.ca

