

**Nickel-Based Alloy Recommended for to Protect Against
Wear or Corrosion Control**

Eutalloy® 11496



COATING

- Ideal for protective coating, joining and cladding applications
- The deposit is easy to machine with standard cutting tools
- Exceptionally heat resistant
- Ideal for protection against metal-to-metal friction



DESCRIPTION:

Eutalloy 11496 is a multi-component nickel-base alloy powder used to produce hard, low friction overlay deposits for wear or corrosion control. Composition based on AMS 4775C and precise particle sizing ensures consistent deposition, fusing and hardness. It is a hot process powder designed to be applied and fused using a “puddle type” torch such as the Eutalloy or Ultrajet Eutalloy thermal spray processes. For applications on surfaces of steels, stainless steels, cast irons and nickel-base alloy that are subject to abrasion, metal to metal wear or in some cases corrosion.

TECHNICAL DATA:

Powder Properties

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

Magnetic Properties: This alloy contains enough Chromium, Boron, and Silicon to make it non-magnetic (ie Primarily Austenitic Structure).

Hall Flow Rate: 15 seconds

Bulk Density: 4.3 g/cc

Approximate Melting Range: Solidus: 1750°F (955°C)
Liquidus: 1950°F (1065°C)

Powder Coverage: 50 inch² per pound @ 1/16” thickness.

Coating Properties

Hardness: Rockwell C scale 59

Density: 7.6 g/cc

Approximate Thermal Expansion: 200-1000° F $7.4 \times 10^{-6}/F$
1000-1400° F $7.2 \times 10^{-6}/F$
1400-1800° F $8.0 \times 10^{-6}/F$

Electrical Conductivity: Should be similar to NiChrome (80/20) alloy

PROCEDURE FOR USE:

Finishing Procedure:

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

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.

APPLICATIONS:

- Cams Screws
- Ceramic die cutters
- Camshafts
- Ball joints
- Plug gauges
- Molds Nozzles
- Mandrels
- Tool rests
- Valve seats
- Tappets

YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



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