

Nickel-Based Alloy Designed to Provide a Combination of Machinability and Resistance to Wear and Corrosion

Eutalloy® 11493



COATING

- Easy contour forming on stainless steels, steels, nickel and cast iron
- The deposit is easy to machine with standard cutting tools
- Exceptionally heat resistant
- Excellent machineability



DESCRIPTION:

Eutectic 11493 is a nickel base Eutalloy alloy designed to provide a combination of machinability and resistance to wear and corrosion. Excellent weldability and machinability permits easy contour forming on steels, stainless steel, nickel alloys and cast irons. The Eutalloy process permits precise deposition of 11493 so that thin, tough overlays can be applied and dimensional tolerances maintained.

TECHNICAL DATA:

Powder Properties

Nominal Composition: Nickel, Boron, Silicon
Hall Flow Rate: 14 seconds
Bulk Density: 4.8 g/cc
Approx. Melting Range: Solidus, 1775° F (968°C)
Liquidus, 2100° F (1150°C)
Furnace Fusing, 2125° F (1163°C) (suggested)

Coating Properties

Typical Hardness: HRC 39
Maximum Service Temperature: 900 - 1400° F (482-760°C)
Thickness Limit: 0.25", or more

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:

- Bearing surfaces
- Crankshaft journals
- Dies
- Diesel valves
- Feed rolls
- Material pins
- Moulds
- Pump parts
- Shafts
- Tile dies
- Valve plugs
- Valve Seats
- Wear rings

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