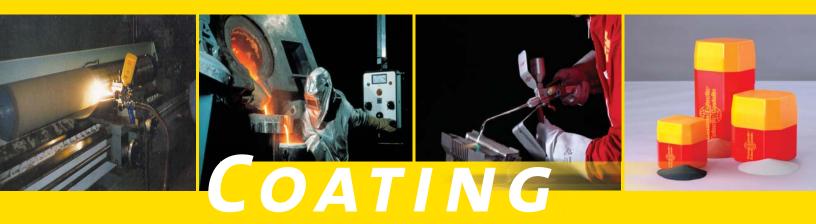
Eutalloy 10009



- Non-magnetic and non-sparking deposits
- Excellent wear and corrosion control
- Precise particle sizing ensures consistent deposition, fusing and hardness
- Designed to be applied and fused using the Eutalloy or Ultrajet Eutalloy thermal spray processes



DESCRIPTION:

Eutalloy 10009 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 the Eutalloy or Ultrajet Eutalloy thermal spray processes. For applications on surfaces of steels, stainless steels, cast irons and nickelbase alloy that are subject to abrasion, metal to metal wear or in some cases corrosion. Resists softening at elevated temperatures and will not scale even when subjected to "red heats". Exceptionally dense, smooth deposits permit very thin passes. Deposits are non-magnetic and nonsparking. For applications that require very heavy buildup Eutectic 10185 can be used as a cushion layer.

APPLICATIONS:

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

TECHNICAL DATA:

Powder Properties

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 q/cc

Approximate Melting Range: Solidus, 1750°F (954°C)

Liquidus, 1950° F (1066°C)

Powder Coverage: 50 inch² per pound, 1/16" thick

Coating Properties

Hardness: Rockwell C scale 59

Density: 7.6 q/cc

Approximate Thermal Expansion: 200-1000° F 7.4 x ¹⁰⁻⁶/F

1000-1400°F 7.2 x 10-6/F 1400-1800°F 8.0 x 10-6/F

Electrical Conductivity: Should be similar to NiChrome

(80/20) alloy

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

Wear Resistance (ASTM G-65 Schedule A volume loss): 20-35 mm³

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" per minute Finishing, 3-8" per minute In-Feed: Roughing, 0.001" per pass Finishing, 0.0005" 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

YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



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