

Nickel-Base Alloy Designed for the Eutalloy Process

Eutalloy® 10185



COATING

- Excellent resistance to wear and corrosion
- Excellent weldability and machinability on a wide range of steels and stainless steels
- Thin, tough overlays maintain tight dimensional tolerances



DESCRIPTION:

Eutectic 10185 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 10185 so that thin, tough overlays can be applied and dimensional tolerances maintained.

APPLICATIONS:

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

TECHNICAL DATA:

Powder Properties

Nominal Composition: Nickel, Balance Boron, Silicon
Hall Flow Rate: 14 seconds
Bulk Density: 4.8 g/cc
Approximate Melting Range: Solidus, 1775°F (968°C)
Liquidus, 2100°F (1149°C)
Furnace Fusing: 2125°F (1163°C) (suggested set point)

Coating Properties

Hardness: Rockwell C scale 39
Maximum Service Temperature: 900 - 1400°F (483-760°C)
Thickness Limit: 0.25", or more

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

YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



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