Nickel-Base Alloy Designed for the Eutalloy Process

Eutalloy^{*}**10185**



- 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.

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

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

APPLICATIONS:

Bearing Surfaces	Moulds
Crankshaft Journals	Pump Parts
Dies	Shafts
Diesel Valves	Tile Dies
Feed Rolls	Valve Plugs
Material Pins	Valve Seats
Glass Mould Plungers	

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.

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