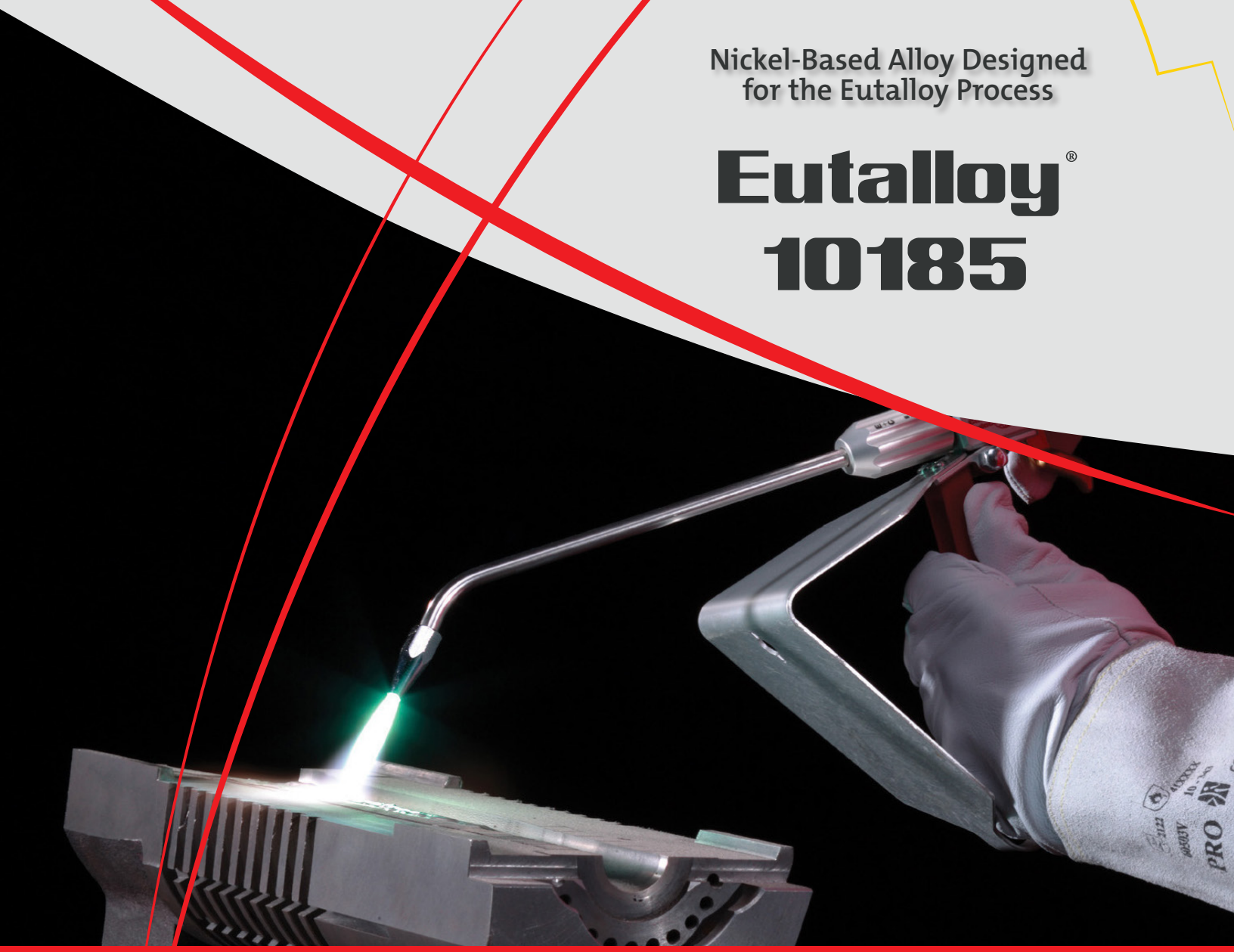
Castolin Eutectic®
Eutectic Castolin

Nickel-Based 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

Eutalloy® 10185

Eutectic 10185 is a nickel-based Eutalloy alloy designed toprovide 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

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

PROCEDURE FOR USE

For Roughing:
Grinding Wheel Type: Green Silicon Carbide
Grit Size: 60 - 120
Grade: I - L
Structure: 5 - 6 - 7
Bond Type: Vitrified
Wheel Speed: 6500 ft. per minute
In-Feed: 0.001 inches per pass
Finishing: 0.0005 inches per pass or less

For Finishing:
Grinding Wheel Type: Aluminum Oxide
Grit Size: 120 or finer Concentration
Grade: I - L
Structure: 7 - 8 - 9
Bond Type: Vitrified
Wheel Speed: 6500 ft. per minute
In-Feed: 0.001 inches per pass
Finishing: 0.0005 inches per pass or less

FEPA std.:
Grinding Wheel Type: Diamond D151
Grit Size: 75
Grade: ---
Structure: ---
Bond Type: Metal
Wheel Speed: 18 - 22 meter/min.
In-Feed: 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.

TYPICAL APPLICATIONS

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

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 website for Material Safety Data Sheet (MSDS) information. DISREGARDING THESE INSTRUCTIONS MAY BE HAZARDOUS TO YOUR HEALTH.

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