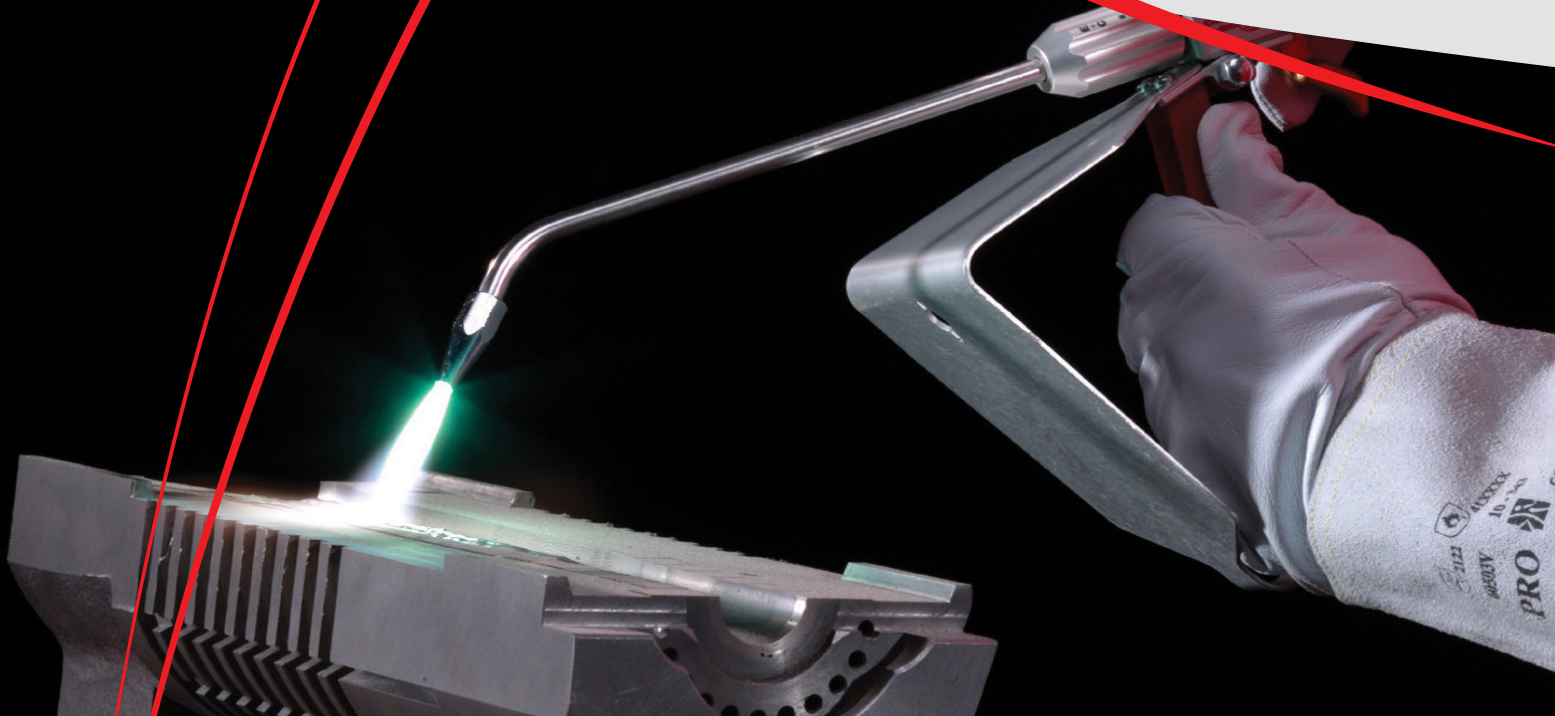




Atomized Nickel-Based Alloy  
Designed for Glass Mold Applications

# **Eutalloy®** **1207**



- Precise particle sizing ensures consistent deposition, fusing and hardness
- Crack-free, abrasion and friction resistant deposits
- May be used in a wide variety of thermal spray processes
- Machinable deposits

# Eutalloy® 1207

Eutectic 1207 is an atomized nickel alloy powder optimized for use in the Glass Industry. It is used to produce durable, crack-free, abrasion, and friction resistant machinable coating. It is optimized for use with the TeroDyn® thermal spray process equipment. It is also suited for use via some of the other "Sprayweld" equipment commercially available. Controlled composition based on AWS A5.13 and precise particle sizing ensures consistent deposition, fusing and hardness.

## TECHNICAL DATA

### Typical Powder Properties

<b>Melting Range:</b>	Solidus; 1780°F (971°C) Liquidus; 2120°F (1160°C) Furnace Fusing; 2150°F (1177°C) (Set Point)
<b>Hall Flow Rate:</b>	17 seconds
<b>Bulk Density:</b>	4.2 g/cc
<b>Powder Coverage:</b>	0.042 lbs/ft <sup>2</sup> @ 0.001"
<b>Composition:</b>	Nickel, Chromium, Boron, Silicon, Iron, Carbon

### Typical Coating Properties

<b>Hardness:</b>	HRC 36 - 40
<b>Density:</b>	7.6 g/cc
<b>Shrinkage on Fusing:</b>	17 - 20%

## PROCEDURE FOR USE

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  
Coolant: Flood coolant with rust inhibitors in 2-5% concentration

	Traverse Speed	In-Feed
<b>Roughing</b>	5-15 inches per minute	0.001 inches per pass
<b>Finishing</b>	3-8 inches per minute	0.0005 inches per pass or less

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.

### TD 2000

Nozzle: RL 210  
RotoJet: RPA 3 @ 40 psi air  
Module Adaptor: Yellow/Red  
Oxygen: 50 psi / 30 flow (FM-1 flowmeter)  
Acetylene: 12 psi / 60 flow (FM-1 flowmeter)  
T-Valve Setting: 14 clicks  
Spray Rate: 18 lb/hr  
Deposit Efficiency: 90%  
Spray Distance: 6 to 7 inches

### TD 3000

Nozzle: RL 200  
Oxygen: 50 psi / 32 flow  
Acetylene: 12 psi / 48 flow  
Carrier Gas: Nitrogen @ 55 psi  
Terometer: 130  
Spray Rate: 20 lb/hr  
Spray Distance: 6 to 8 inches  
Deposit Efficiency: 90%

## TYPICAL APPLICATIONS

- Glass mold plungers all types including those of grey cast iron
- Cast Steel
- Stainless Steel
- Super Alloys

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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