



Self Fluxing Powder Specifically Designed  
for Glass Mold Components

# Eutalloy LT PE 8431



- Spherical particles and dense deposits with negligible porosity
- Special fluxing agents improve fluidity, wetting and decrease melting point
- Excellent machinability, mirror-like finishes
- Exceptional deposition speeds

# Eutalloy LT PE 8431

Eutalloy LT PE 8431 is a nickel-based, self-fluxing powder, developed specifically for the protection of glass mold components. The powder contains special fluxing agents which improve fluidity, wetting and allow for a decreased melting point. This allows faster deposition rates and reduced pre-heating. LT PE 8431 is a pre-alloyed powder, produced by gas atomization, which gives spherical particles. The chemical composition and particle size distribution have been carefully selected to limit adherent overspray and produce negligible porosity. Coatings exhibit excellent machinability and mirror-like surface finishes can be obtained.

## TECHNICAL DATA

Typical Values	
Hardness:	Matrix: 31 HRC Carbide (HV 30): 280-325
Solidus Melting Temperature:	1580°F (860°C)
Deposit Density:	8.4 g/cm <sup>3</sup>

LT PE 8431 is designed to be sprayed by an oxy-acetylene flame-spray torch, such as SuperJet® Eutalloy.

## PROCEDURE FOR USE:

### PREPARATION

Degrease the surface to be coated, then by grit-blasting, grinding or machining. Ensure that the work-piece is free from all contamination, including fingerprints. Preheating is not required for small repairs.

For major repairs, preheat the workpiece to ~185°F (~100°C) to eliminate moisture, then quickly pre-spray a thin layer (~0.2 mm) over the area to be coated, to prevent oxidation. The temperature should then be raised to between 162°F and 324°F (300°C and 600°C) (fusion time decreases as the preheating temperature is increased).

### SPRAYING PROCESS

Progressively spray and fuse a layer over the entire area (fusion occurs when the molten pool becomes shiny). Work fast enough to avoid overheating. Repeat the spray-fusion operation until the required coating thickness is obtained.

### POST-SPRAYING TREATMENT

Allow workpiece to cool slowly to ambient temperature away from any air currents. The workpiece may be immersed in vermiculite.

### FINISHING

By hand filing or by machining with a high-speed steel or hard-metal cutting tool.

## TYPICAL APPLICATIONS

LT PE 8431 is designed for surfacing cast iron and steel glass mold materials. Its intermediate hardness makes it suitable for protecting new mold components as well as re-building worn molds. It is recommended for protection of mold edges, finish molds, preform blanks, guide rings, baffles and funnels.

The powder may also be used in other applications where its low fusion temperature is advantageous. It bonds to many base materials, including carbon steels, stainless steels, cast iron, nickel and aluminium-bronze alloys.

To ensure a safe work environment observe normal welding practices, provide appropriate eye, hearing, skin and respiratory protection and pay attention to air flow patterns. 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.



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