

- Porosity-free deposits
- Hand-finishing capability
- Rapid build up with minimal overspray
- Excellent machinablity

## **Eutalloy® 11497**

Eutectic 11497 is a nickel-based 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 castirons. The Eutalloy process permits precise deposition of 11497 so that thin, tough overlays can be applied and dimensional tolerances maintained.

### **TECHNICAL DATA**

Typical Powder Properties	
Nominal Composition:	Nickel, Boron, Silicon
Hall Flow Rate:	14 seconds
Bulk Density:	4.8 g/cc
Typical Coating Properties	
Hardness:	25 HRC
Maximum Service Temperature:	1200°F (650°C)
Thickness Limit:	None

# PROCEDURE FOR USE

#### **Preparation:**

All surfaces to be coated should be thoroughly cleaned, removing all contaminants, oxides and grease. Thin surfaces and edges require no preheating. However, large, heavy and cast iron parts of all thickness should be heated to about 575°F (approx. 302°C) (blue hot).

#### **Coating Instructions:**

For coating operations the flame of the SuperJet S torch should be adjusted to neutral with the powder feed on. To prevent oxidation of the base material we recommend spraying a thin coat of Eutectic 11497. A second coat is delivered in the following manner: preheat locally to fusion point (when the first coat becomes glazed in appearance), then spray and fuse the second coat simultaneously. Move progressively along, spraying and fusing, until the entire surface is covered. Distance between the cone of the flame and the piece should be 0.25 - 0.75 inch. Leave the part to cool slowly and away from air currents. Where possible, place it in vermiculite or cover with a thermal blanket.

#### **Finishing Procedure:**

Machine with standard carbide tools or grind with the following parameters:

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

## TYPICAL APPLICATIONS

General purpose build-up and dimensional restoration for cast iron and steel parts such as:

- Gears
- Cast Iron Valve Seats
- Molds
- Keyways
- Bearing Seats
- Drawing Tools

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.

