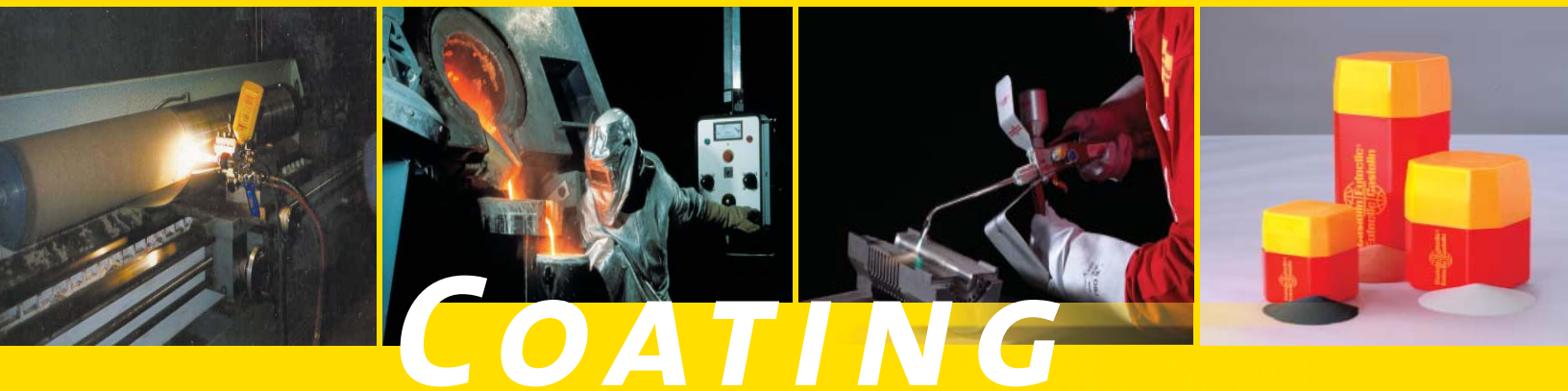


**Nickel-Based Alloy Recommended for Cast Iron Protection and Repair**

# **Eutalloy® 10224**



## **COATING**

- Ideal for protective coating, joining and cladding applications
- The deposit is easy to machine with standard cutting tools
- Exceptionally heat resistant
- Ideal for protection against metal-to-metal friction



## DESCRIPTION:

Eutalloy 10224 (NiTec) is a nickel-based alloy with properties which make it ideal for protective coating, joining and cladding applications on a variety of base metals including steels, cast irons and nickel alloys. The deposit is easy to machine, with standard cutting tools, and has a low coefficient of friction and wear resistance properties which make it ideal for protection against metal-to-metal friction. It is also exceptionally heat resistant.

Eutalloy 10224 is manufactured by a process of atomization, designed to ensure both optimum spheroidization and controlled granulometry. This in turn ensures trouble-free fusion of the alloy using our SuperJet Eutalloy torch. Eutalloy 10224, applied with a Eutalloy system, produces smooth and uniform quality coatings.

This maintenance-engineered coating technology increases the value and reliability of parts treated, with results far superior to conventional repair processes, and savings in costs including those of machining.

Eutalloy 10224 is recommended for rectifying both machining and casting defects, as well as for protective coatings against oxidation, with a considerable gain in service life for a number of parts.

## 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 Eutalloy B or 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 Eutalloy 10224. 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 .25 - .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

## APPLICATIONS:

Recommended for corrosion/wear-resistant coatings on journals and gearwheels, exhaust manifolds, etc., for repair of casting and machining defects and for repair of worn areas of deep-drawing dies.

## TECHNICAL DATA:

Typical Hardness (HRb):	90
Melting range (sol./liq.) (°F):	1920°-2330° (approx. 1049°-1277° C)
Density (lb./in <sup>3</sup> ):	0.293
Heat-stability (°F):	1112° (600°C)
Metal-to-metal friction property:	Excellent
Corrosion resistance:	Very good
Machinability:	Excellent, with normal cutting tools
Base materials:	Recommended for steels, cast irons and nickel alloys
Gases:	Oxygen-acetylene
Torches:	Eutalloy B and SuperJet S

## PACKAGING:

For the customer's convenience, Eutalloy 10224 can be obtained in a bulk package size under the part number 11498.

## HEALTH & SAFETY:

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 web site for Material Safety Data Sheet (MSDS) information.

DISREGARDING THESE INSTRUCTIONS MAY BE HAZARDOUS TO YOUR HEALTH

## YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS



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