

Overview

3000 Hot 'N Tuff is the most versatile welding alloy ever developed because of its unique alloy balance system. It can withstand operating temperatures as high as 2,000°F (1,100°C) and as low as -385°F (-232°C). It will successfully weld an extremely wide variety of base metals including stainless, high carbon and dissimilar steels, Monel®, Inconel, and other nickel-base alloys to themselves and others.



3000 Electrode

3000T TIG Wire



Features/Benefits

- Extremely versatile and easy to use
- X-ray-quality weld deposits
- Extremely tough – yet machinable
- Resists scaling to 2,000°F (1,100°C)
- Corrosion resistant
- Resists thermal shock
- Extra nickel, less carbon and iron for superior performance
- Ductile to -385°F (-232°C)
- Moisture-resistant coating
- Easy to de-slag, excellent bead appearance

Applications

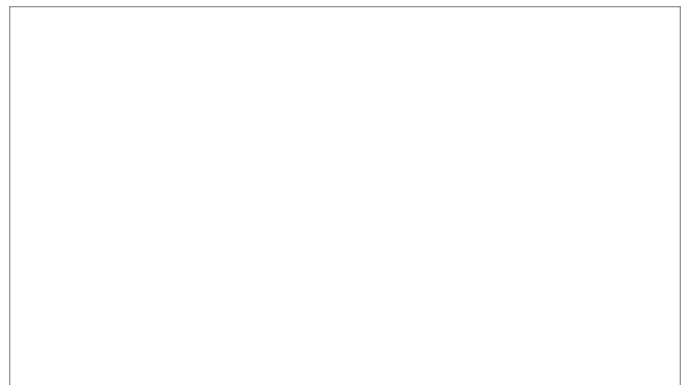
- Welding crack-sensitive steels
- Welding dissimilar steels
- Welding Monel® or Inconel to themselves or other alloys of nickel or iron
- Heat-treat baskets
- Buffer layer on forging dies and hammers
- Welding high-temperature, creep-resisting steels
- Furnace and boiler components

Method of Application

DC reverse polarity (electrode); DC straight (TIG wire)

Identification

Printed gray electrode; TIG flagged one end



Directions for Use

Use DC reverse polarity with normal maintenance welding procedures. Surface should be as clean as practical, however 3000 Alloy is manufactured with special cleaning and fluxing agents to promote sound welds under most conditions. Hold a short arc and tilt electrode 10° in the direction of travel. Remove slag between passes. Preheat is usually not required for the weld metal, but it may be required depending on base metal alloys, and/or thickness. Do not weave more than two times the core wire diameter. 3000 Alloy deposited weld beads should have a convex profile. AVOID flat or concave beads.

Technical Specifications

Tensile Strength: 100,000 PSI (689 MPa)
Elongation: 33%
Tensile Strength at 1,115°F (602°C): 75,000 PSI (517 MPa)
Gas (TIG): 100% Ar

Technical Tips

Hot 'N Tuff 3000 Alloy, used as a buffer layer on difficult-to-weld steels, reduces the possibility of cracking.