

# TECH-ROD 182

- I. **DESCRIPTION:** Tech-Rod 182 electrodes are used for welding of nickel-chromium-iron alloys to themselves, and for dissimilar welding between nickel-chromium-iron alloys and steels or stainless steels. The applications include surfacing as well as clad-side welding. High manganese of this weld deposit reduces the possibility of micro fissures. High manganese reduces creep strength, which limits its usage up to 900°F.
- II. **APPROVALS:** Manufactured under Quality System approved by ASME, ISO9001. Meets AWS 5.11 Class ENiCrFe-3. Approved by Canadian Welding Bureau.

III. **CHEMICAL COMPOSITION**

Carbon	.03
Manganese	6.5
Silicon	.42
Iron	7.4
Chromium	15.25
Columbium+Tantalum	1.75
Nickel	68.60
Sulfur	.007
Phosphorus	.012

**MECHANICAL PROPERTIES**

<b>Tensile Strength</b>	
84,500 PSI	580 MPA
<b>Yield Strength</b>	
53,500 PSI	370 MPA
<b>Elongation</b>	36%

IV. **WELDING PARAMETERS**

Direct Current  
Electrode + Ve

**AMPERAGES:**

3/32"	65-75
1/8"	90-105
5/32"	120-135
3/16"	135-155

(For vertical welding amperages are to be reduced by 10 to 15 amps)

V. **PACKAGES AVAILABLE:**

3/16"-10# can, 5/32"-10# can, 1/8"-10# Can, 3/32"-8# can