



## TENALLOY 70A

LOW ALLOY STEEL (Low Temperature)



Basic coated Electrode for welding 2.5% Ni steel.

**CLASSIFICATION :** EN ISO 2560-A

AWS A/SFA 5.5

**APPROVALS :**

E 46 6 2Ni B 32 H5

E 8018-C1

IBR/RDSO

### KEY FEATURES :

- Basic coated electrode
- Ni-Mn type low alloy steel deposit
- Tough and crack free weld
- Excellent fracture toughness at subzero temperatures
- Radiographic quality weld
- All position capability

**WELDING POSITION :**



AC (90 OCV)/DCEP

### TYPICAL APPLICATIONS :

- Welding of 2.5% Ni steel and similar low alloyed steel for impact at -60°C
- Suitable for ASTM SA 203/203M Gr.A/B
- Shipbuilding, Bridge structure
- In refineries, power plants e.g. Pressure vessels, Heat exchanger
- Cast steels, Low temperature steel pipes, Aluminium killed steels, Low Mn alloy steels

**REDRYING CONDITION :** 250-300°C for minimum 1 hr. (Also available in vacuum packed condition)

### CHEMICAL COMPOSITION OF UNDILUTED WELD METAL, Wt % :

|               | C        | Mn       | Si       | Ni       | S        | P        |
|---------------|----------|----------|----------|----------|----------|----------|
| Typical       | 0.04     | 0.8      | 0.3      | 2.3      | 0.02     | 0.02     |
| Specification | 0.12 max | 1.25 max | 0.80 max | 2.0-2.75 | 0.03 max | 0.03 max |

### MECHANICAL PROPERTIES OF ALL WELD METAL :

|               | Condition | UTS, MPa | YS at 0.2% offset, MPa | EL%    | CVN Impact at -60°C, J |
|---------------|-----------|----------|------------------------|--------|------------------------|
| Typical       | As Welded | 610      | 515                    | 26     | 57                     |
| Specification |           | 550 min  | 460 min                | 19 min | 30-80                  |

**Hardness, 3 Layer:** 210 BHN max

**Diffusible H2 Content:** <5 ml/100 gm

### PARAMETERS - PACKING DATA :

| Ø x L, mm  | Amperage, A | Approx. Pcs/Carton | Carton/Box | Approx. wt. of 1000 pcs, Kg. |
|------------|-------------|--------------------|------------|------------------------------|
| 2.5 x 350  | 60-90       | 240                | 4          | 21                           |
| 3.15 x 450 | 100-140     | 114                | 4          | 44                           |
| 4.0 x 450  | 140-180     | 75                 | 4          | 66                           |
| 5.0 x 450  | 190-250     | 49                 | 4          | 102                          |

**EQUIVALENT :** GMAW wire: Automig 80S-Ni2

GTAW filler: Tigfil-80S-Ni2