



## TENALLOY 55

LOW ALLOY STEEL (Low Temperature)



Basic coated low alloy Electrode for welding 1% Ni steel.

**CLASSIFICATION : EN ISO 2560-A**

**AWS A/SFA 5.5**

**APPROVALS :**

E 46 5 1Ni B 12 H5

E 8018-G

IBR

### KEY FEATURES :

- Basic coated electrode
- Excellent fracture toughness down to -50°C
- Resist atmospheric corrosion
- Weld metal is tough & highly crack resistant
- Radiographic quality weld
- Suitable for positional welding

**WELDING POSITION :**



**AC (70 OCV)/DCEP**

### TYPICAL APPLICATIONS :

- Suitable for joining steels containing 1% Ni and 0.5% Cu
- Storage tanks, Pipes
- Pressure vessels, Boilers
- Bridges, Heavy structures

**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       | 0.07      | 1.35     | 0.4       | 1.1      | 0.01     | 0.02     |
| Specification | 0.095 max | 1.0-1.65 | 0.25-0.65 | 0.7-1.25 | 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 -50°C, J |
|---------------|-----------|----------|------------------------|--------|------------------------|
| Typical       | As Welded | 610      | 570                    | 25     | 62                     |
| Specification |           | 550 min  | 460 min                | 19 min | 50 avg.                |

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       | 227                | 4          | 22                           |
| 3.15 x 450 | 100-140     | 113                | 4          | 44                           |
| 4.0 x 450  | 140-180     | 76                 | 4          | 65                           |
| 5.0 x 450  | 190-250     | 49                 | 4          | 100                          |

**EQUIVALENT : GMAW wire: Automig 80S-Ni1**

**GTAW filler: Tigfil 80S-Ni1**

**FCAW wire: Automig FC 81T1-Ni1**