



TENALLOY 110

LOW ALLOY STEEL (High Strength)



Extra Low Hydrogen Low Alloy Welding Electrode For High Strength With Subzero Application

CLASSIFICATION : EN ISO 18275-A

E 11018-G H4R

KEY FEATURES :

- Extra low hydrogen electrode
- Low alloy high tensile steel electrode
- Good impact toughness at -50°C
- Weld metal exhibit better ductility
- All position capability
- Radiographic quality weld
- Suitable for welding fully killed fine grained steels

WELDING POSITION :



AC (90 OCV)/DCEP

TYPICAL APPLICATIONS :

- Penstocks, Earth moving equipments & other heavy steel fabrications made from high tensile steels
- Welding USS T-1 steel, Heat treated fine grained steels, NAXTRA 70, HY80
- Suitable for ASTM SA 225/225M Gr.C/D, SA 533/533M Gr.B/C/D Class 2 and 3, SA 543/543M Gr.B/C Class 1 and 2, SA 612/612M, SA 738/738M Gr.A/B/C

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

CHEMICAL COMPOSITION OF UNDILUTED WELD METAL, Wt % :

| | C | Mn | Si | Ni | Cr |
|---------------|-----------|-----------|-----------|-----------|-----------|
| Typical | 0.08 | 1.6 | 0.5 | 1.8 | 0.15 |
| Specification | 0.012 max | 1.20-1.80 | 0.30-0.70 | 1.25-2.50 | 0.30 max |
| | Mo | V | S | P | |
| Typical | 0.2 | 0.02 | 0.01 | 0.01 | |
| Specification | 0.30 max | 0.05 max | 0.012 max | 0.015 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 | 790 | 700 | 22 | 44 |
| Specification | | 760 min | 670 min | 15 min | 30-70 |

Diffusible H2 Content: <3 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 | 215 | 4 | 23 |
| 3.15 x 450 | 90-140 | 113 | 4 | 44 |
| 4.0 x 450 | 140-180 | 78 | 4 | 63 |
| 5.0 x 450 | 180-250 | 51 | 4 | 96 |