



# TENALLOY 90D3

**LOW ALLOY STEEL (High Strength)**



Welding Electrode Depositing Mn-Mo Type Low Alloy Steel Weld

**CLASSIFICATION : AWS A/SFA 5.5**

E9018-D3

**KEY FEATURES :**

- Basic coated electrode
- Mn-Mo type weld deposit
- Excellent welding characteristics
- High strength with excellent fracture toughness down to -50°C
- Suitable preheat, interpass and PWHT is required depending on base metal composition
- All position capability
- Radiographic quality weld

**WELDING POSITION :**



AC (70 OCV)/DCEP

**TYPICAL APPLICATIONS :**

- Welding of low alloy high tensile steels of typical UTS 650 MPa
- Welding of Q&T fine grained steels
- Penstocks, Earth moving equipments
- Suitable for low alloy structural steels

**REDRYING CONDITION : 250-300°C for minimum 1 hr**

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

	<b>C</b>	<b>Mn</b>	<b>Si</b>	<b>Ni</b>	<b>Mo</b>	<b>S</b>	<b>P</b>
Specification	0.12 max	1.0-1.80	0.80 max	0.90 max	0.40-0.65	0.025 max	0.025 max

**MECHANICAL PROPERTIES OF ALL WELD METAL :**

	<b>Condition</b>	<b>UTS, MPa</b>	<b>YS at 0.2% offset, MPa</b>	<b>EL%</b>	<b>CVN Impact at -50°C, J</b>
Specification	PWHT: 620°C for 1 hr.	620 min	530 min	17 min	27 min

Diffusible H2 Content: <5 ml/100 gm

**PARAMETERS - PACKING DATA :**

<b>Ø x L, mm</b>	<b>Amperage, A</b>	<b>Approx. Pcs/Carton</b>	<b>Carton/Box</b>	<b>Approx. wt. of 1000 pcs, Kg.</b>
3.15 x 450	100-140	109	4	46
4.0 x 450	140-180	78	4	64
5.0 x 450	190-250	49	4	102

