



MODI 8018 B2 (PHT-9)

LOW HYDROGEN ELECTRODE

CLASSIFICATION :

IS : 1395-82 : E 55B-B2 26 Fe
AWS/A 5.5 : E 8018-B2

CHARACTERISTICS :

A special electrode with controlled chemistry giving more than 550 N/mm² tensile strength after stress relieving with prolonged soaking period. Weld metal gives excellent impact stress properties at -20°C. Weld hardness after stress relieving is well under 200 BHN. Good slag detachability, smooth bead and high operator appeal are the specialities of the electrode. The weld metal displays excellent strength and creep resistance at elevated temperature upto about 550°C. Metal recovery is about 110%.

APPLICATIONS :

Welding of creep resisting ½Cr ½Mo, 1Cr ½Mo and 1¼Cr ½Mo steels used in power plants, oil refineries, chemical plants. Particularly suitable for :

- Boilers
- Pipes
- Drill Platforms
- Pressure Vessels
- Tanks
- Tubes

RECOMMENDATIONS :

Re-dry the electrodes at 350°C for one hour or at 250°C for two hours. Keep the redried electrodes in holding oven having 50°C-60°C temperature. Use the electrodes directly from the holding oven. The pre-heat and interpass temperature should be maintained at 160°C-190°C.

CHEMICAL ANALYSIS OF WELD-METAL(%) :

C	Mn	Si	Cr	Mo	Ni	Cu
0.07	0.75	0.40	1.30	0.50	0.25	0.05
S	P	P+Sn				
0.01	0.01	0.015				

MECHANICAL PROPERTIES OF ALL WELD-METAL (AFTER SR AT 690°C FOR 9 HOURS) AS PER AWS / A 5.5 :

Yield Strength	Ultimate Tensile Strength	Elongation (%)	CVN Impact at -20°C (Joules)	Hardness After SR at 690°C for 3 hrs. 200 BHN
N/mm ²	N/mm ²	(%)		
495	575	25	100	

CURRENT CONDITIONS : USE DC (+) OR AC (70V)

Size (mm)	2.5x350	3.15x350 3.15x450	4.0x350 4.0x450	5.0x450	6.3x450
Amps	70-100	90-140	140-180	180-220	240-280

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