



EXCEL 18

LOW HYDROGEN ELECTRODE

CLASSIFICATION : IS : 814-2004 : EB5426 H3JX
AWS/A 5.1 : E 7018

APPROVALS : CIB, IRS, DNV, LRS, M.N.DASTUR, BHEL

CHARACTERISTICS : A low hydrogen iron powder electrode, suitable for welding of medium tensile strength steels. Weld metal is of radiographic quality. Metal recovery is above 110% Medium tensile strength and excellent ductility combined with very good impact values at -30°C temperature makes the electrode versatile. Typical hydrogen content is 5 ml/100gms of weld deposit.

APPLICATIONS :

- Storage Tanks
- Boilers
- Railway Wagons
- Pressure Vessels
- Penstocks
- Blast Furnace Shells
- Pipe Lines
- Dynamic Loaded Structures

RECOMMENDATIONS : Redry the electrodes at 350°C for one hour or at 250°C for two hours. Keep the re-dried electrodes in a holding oven having 50°-60°C temperature. Use electrodes directly from holding oven. Use short arc to get optimum results. Stringer bead technique will ensure defect free weld deposits.

CHEMICAL ANALYSIS OF WELD METAL (%) :

	C	Mn	Si	S	P
	0.10 max	1.0-1.6	0.6 max	0.035 max	0.035 max

MECHANICAL PROPERTIES OF WELD-METAL (AS PER IS:814-2004) :

	Yield Strength	Ultimate Tensile Strength	Elongation (GL=5d)	Reduction in Area	CVN Impact Values at 27°C/-30°C
	Kg/mm ²	Kg/mm ²	(%)	(%)	Joules (min)
	46-52	55-66	26 min	60 min	90/30
	N/mm ²	N/mm ²			Kgf.m.(min.)
	450-510	540-650			9/3

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

Size (mm)	2.5 x 350	3.15 x 450	4.0 x 450	5.0 x 450	6.3 x 450
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Range (Amps.)	70-100	100-140	140-180	180-240	240-300
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