



# MODI XL 13

## MILD STEEL ELECTRODE

**CLASSIFICATION** : IS : 814-2004 : ER 4211  
AWS/A 5.1 : E 6013

**APPROVALS** : BIS

**CHARACTERISTICS** : EXCEL 13 is a general purpose medium coated rutile type electrode for all position welding, including vertical downward. Stable arc, moderately fluid slag, finely rippled bead make the electrode highly suitable for the welding shops. EXCEL-13 is capable of meeting radiographic quality standard and gives excellent mechanical properties.

**APPLICATIONS** :

- Storage Tanks
- Boilers
- Railway Wagons
- Bridges
- Structural Fabrication
- Ship-hull Construction
- Pipe Lines
- Furniture

**RECOMMENDATIONS** : Keep the electrodes in a dry place . It is always better to re-dry the electrodes at 100°C for 30 minutes, to obtain the best results. Use the welding current within the recommended range.

**CHEMICAL ANALYSIS OF WELD METAL (%)** :

	C	Mn	Si	S	P
	0.10 max	0.35-0.70	0.40 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/0°C
	Kg/mm <sup>2</sup>	Kg/mm <sup>2</sup>	(%)	(%)	Joules
	42-47	47-56	26-30	50-70	70/50
	N/mm <sup>2</sup>	N/mm <sup>2</sup>			Kgf.m (min.)
	410-460	460-550			7/5

**CURRENT CONDITIONS : USE AC(50V) OR DC (±)**

Size (mm)	2.0 x 300	2.5 x 350	3.15 x 350	4.0 x 450	5.0 x 450	6.3 x 450
			3.15 x 450			

Range (Amps.)	50-70	70-100	85-120	140-180	180-220	240-280
---------------	-------	--------	--------	---------	---------	---------



## WELD EXCEL INDIA LTD.

D-230, Phase VII, Focal Point,  
Ludhiana - 141 010

Phone : (0161) 3259335 Telefax : 0161-2677459

Manufactured under licence from :  
MODI ARC ELECTRODES CO.  
(A UNIT OF MODI INDUSTRIES LTD.)  
MODINAGAR (U.P.) 201 204