



# MOLY CHROME-9

## HIGH TENSILE CREEP RESISTANCE ELECTRODE

**CLASSIFICATION :** AWS/A 5.5 : E 8018-B8

**CHARACTERISTICS :** A basic coated low hydrogen iron powder electrode for welding of high strength creep resistant steels, ferritic martensitic chrome steels. Weld metal gives 9% Cr-1% Mo and displays resistance to oxidising atmosphere upto 700°C. Operates equally well on AC (90V) and DC (+). Radiographic quality welds. Easy slag detachability and finally rippled beads. Metal recovery is over 110%.

**APPLICATIONS :**

- \* Cr-Mo steels such as 9Cr-1Mo steel plates, pipes & forging used in oil refineries, petrochemical plants, power houses etc.
- \* Corrosion and heat resistance applications.
- \* Repair of castings of similar composition.

**RECOMMENDATIONS :** Re-dry the electrode at 350°C for one hour or at 250°C for two hours before use. Use stringer bead technique and lower currents to ensure proper alloy transfer. Since the weld metal has air hardening tendency, preheating of base metal at 200°C-300°C, depending on thickness, may be done. Maintain interpass temperature around 200°C. To achieve desired mechanical properties, stress relieving at 740°C  $\pm$  14°C for 1 hour, is to be employed.

CHEMICAL ANALYSIS OF WELD-METAL(%) :	C	Mn	Si	Ni	Cr	Mo	S	P
	0.05-0.10	1.0	0.9	0.4	8.0-10.5	0.85-1.2	0.03	0.03
		max	max	max			max	max

MECHANICAL PROPERTIES OF ALL WELD-METAL (AS PER AWS/A 5.5) :	Yield Strength	Ultimate Tensile Strength	Elongation
	N/mm <sup>2</sup>	N/mm <sup>2</sup>	(%)
	460 min	550 min	19 min

**CURRENT CONDITIONS : USE AC(90V) OR DC (+)**

Size (mm)	2.5x350	3.15x450	4.0x350	4.0x450	5.0x450
Amps	70-100	100-130	140-180	140-180	180-240



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