



## AUTOTHERME Cr-Mo 91

**CODIFICATION:** AWS : SFA 5.28 ER90S-B9

### CHARACTERISTICS AND APPLICATIONS:

Autotherme Cr-Mo 91 is copper-coated a solid wire for GMAW, yielding 9%Cr - 1%Mo and modified with Niobium, Vanadium and Nitrogen designed to provide improved creep strength, toughness, fatigue life, oxidation and corrosion resistance at elevated temperatures. The wire gives stable arc, smooth welding performance and deposits radiographic quality welds. It is designed to weld the materials in power plant, refineries, naptha cracker units, etc. Following are some of the steels that can be welded with this wire.

I) Plate: A 387 Gr.91 (II) Pipes: A 335-P91 (III) Tubes: A 213-T91

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	P	S	Cr	Ni	MO	V	Nb	N	Al	Cu
%	0.11	0.95	0.25	0.007	0.008	9.35	0.35	1.0	0.2	0.03	0.04	0.02	0.10

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 760°C FOR 2 HRS)

UTS (MPa)	YS (MPa)	Elongation (L=4d) %
680	550	21

### WELDING PARAMETER: DC(+)

Diameter	Flat Volt, V	Current, A
1.20 mm	27-32	300-360
1.60 mm	25-30	340-420

**SHIELDING GAS:** Argon/ 5% CO<sub>2</sub>

**WELDING POSITION:** H, F, VU, OH

### PACKING :

STANDARD SIZE	1.2 mm & 1.6 mm.
QUANTITY	15.0 kgs wire, layer wound in a plastic spool that conforms to DIN-8559 SD-300.

**Note :** Please check the drum packing and minimum quantity required before placing the order.