



B68 (DC+)

LOW ALLOY STEEL

DESCRIPTION

Low hydrogen basic electrode alloyed with Cr and Mo for welding creep resisting steels used in service up to 1112°F (600°C) (including 2%Cr -1%Mo castings). High resistance to H2S.

CLASSIFICATION

AWS A5.5 : E9018-B3 EN 1599 : E CrMo2 B 4 2 H5 ISO 3580-A : E CrMo2 B 4 2 H5

TYPICAL APPLICATIONS

For over heaters, valve bodies, pipes, boilers, hydrocrackers.

BASE MATERIALS

Tubes & steels for boiler and pressure vessels:

ASTM	A 387 GrD – A 335 GrP 22 – A 213 GrT 22, T36
DIN 17155 and 17245	10 Cr Mo 9.10 – 10 Cr Si Mo V7
BS	1501 Gr 622 to 1504 Gr 622, BS 359 Gr 622/640 1503 Gr 660, 1504Gr 660
NF A 36-206	15CD4-05 – 10CD9-10
	24 CrMo V55 – 12 Cr Mo 9.10 GS 12 Cr MO 9.10...

PROCEDURE

Redrying: 1h at 572°F (300°C), if necessary. Preheating of joints to weld at 482°F (250°C). Interpass temperature: 302-572°F (150-300°C). Annealing after welding is advised at 1292-1382°F (700-750°C) /1h.

MECHANICAL PROPERTIES, after heat treatment at 1292°F (700°C) /1h

Tensile strength: > 82 671 psi (> 570 MPa)
 Yield strength: > 65 266 psi (> 450 MPa)
 Elongation: > 17 %
 Impact (Charpy V): > 100 J at +20°C

TYPICAL WELD METAL COMPOSITION (%)

C	Mn	Si	Cr	Mo	P	S
0.07	0.8	0.4	2.25	1.0	< 0.025	< 0.025

WELDING PARAMETERS

Diameter: 4.0 mm (5/32") 3.2 mm (1/8") 2.5 mm (3/32")
 Amperage: 150 A 115 A 80 A

WELDING POSITIONS



1G/PA 2F/PB 2G/PC 3G/PF 4G/PE

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