



Elgomatic 184CR

GMAW - MIG MAG

Low-alloyed

Date: 2008-01-22
Revision: 5

Description:

Elgomatic 184CR is a copper coated wire for use with the MIG/MAG process, which deposits a 2.4% Cr/1.0% Mo weld metal. It is intended for welding creep resisting steels of similar composition, used in steam generation plant operating at temperatures up to 600°C, e.g. DIN 10 CrMo 9 10, GS-18 CrMo 9 10, GS-17 CrMo V 5 11, BS 3604 Grades 622 etc. Also suitable for use in the chemical and petrochemical industries where resistance to hydrogen attack, corrosion from sulphur bearing crude oil, and stress corrosion cracking in sour environments is required. Preheat and interpass temperature of 200-250°C is recommended. Post-weld heat treat at 700°C.

Welding current:

DC+

Wire composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min	0,07	0,40	0,40			2,30	
Typical	0,08	0,60	0,60	0,007	0,008	2,50	0,04
Max	0,12	0,70	0,70	0,025	0,025	2,70	0,20

	Mo	Cu
Min	0,90	
Typical	1,0	0,13
Max	1,20	0,35

Shielding gas:

C1, 100% CO₂, 7-12 l/min.

M21, 80% Ar + 20% CO₂, 7-12 l/min.

Chemical composition, wt.%

	C	Si	Mn	Cr	Mo
Min					
Typical	0,09	0,65	0,50	2,40	0,95
Max					

Mechanical properties

	<u>Specified</u>	<u>Typical</u>	<u>PWHT Typical</u>
Yield strength, Re:	≥ 540 MPa		580 MPa
Tensile Strength, Rm:	≥ 620 MPa		670 MPa
Elongation, A5	≥ 17%		21%
Impact energy, CV:			20°C • 160 J

Classification:

AWS A5.28

ER90S-B3

Approvals:

Note

Typical values are based on M21.

PWHT: 690°C, 1h

Product data

Diam.mm	Product code	Dip Current A	Dip Voltage V	Spray Current A	Spray Voltage V
1,0	9720-2010	80-150	17-20	180-230	24-30
1,2	9720-2012	110-180	18-22	240-300	26-33