Elgamatic 183Cr

GMAW - MIG MAG

Low-alloyed

Date:	2008-03-19
Revision:	10

Description:

Elgamatic 183Cr is a 1.25% Cr/0,5% Mo alloyed wire intended for welding creep resisting steels of similar composition, used in power generation plant operating at temperatures up to 570°C, e.g DIN 13 CrMo 44, GS-17 CrMo 55, BS 3604 Grades 620 and 621 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 150-200°C is recommended. Post-weld heat treat at 690°C.

Welding current:

DC+

Wire composition, wt.%

	C	Si	Mn	P	S	Cr	Mo
Min	0,08	0,50	0,80			1,10	0,45
Typical	0,11	0,65	1,00	0,015	0,010	1,20	0,50
Max	0,12	0,70	1,20	0,020	0,020	1,30	0,60

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	0,04	0,6	0,80	1,20	0,50
Max					

Mechanical properties

	Specified	Typical
Yield strength, Re:	≥ 355 MPa	460 MPa
Tensile Strength, Rm:	≥ 510 MPa	570 MPa
Elongation, A5	≥ 20%	23%
Impact energy, CV:	20°C • >47 J	20°C • 80 J

Classification:

EN ISO 21952 CrMo1Si

Approvals:

TÜV
CE

Note

Typical values are based on M21.

Product data:

Diam.mm	Product code	Dip Current A	Dip Voltage V	Spray Current A	Spray Voltage V
0,8	9715-2008	50-90	16-18	120-160	22-26
1,0	9715-2010	80-150	17-20	180-230	24-30
1,2	9715-2012	110-180	18-22	240-300	26-33