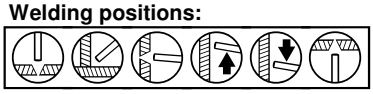
Elgacore 81CrMC

FCAW - Flux cored arc welding
Low-alloyed

Date:	2009-02-19
Revision:	8

Description:
Elgacore 81CrMC is a metal cored wire with similar operability to Elgacore MX 100T. It runs with a stable arc at low welding currents, giving it excellent root welding characteristics. The wire is intended for welding simular composition steels, used for their creep rupture strength and ductility at service temperatures up to 550°C eg. DIN 15 Mo3, BS 3059 Grade 243 and ASTM A 335. Elgacore 81 CrMC is also suitable for ordinary C-Mn steels when higher tensile strength weld metal is required. Preheat and interpass temperature of 100-150°C is recommended. Post-weld heat treat at 620°C

Welding positions:



Welding current:
DC +

Deposition efficiency:
96%

Shielding gas:
80% Ar/20% CO2, 12-16 l/min.

Stick-out:
15-25 mm

Hydrogen content / 100 g weld metal
≤ 5 ml

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0.07	0.35	0.80	0.02	0.02	0.03	0.04
Max			1.40			0.2	0.5

	Mo	Cu	V	Nb
Min	0.30			
Typical	0.5	0.15	0.001	0.005
Max	0.60	0.3	0.08	0.05

Mechanical properties

	Specified	Typical	PWHT Typical
Yield strength, Re:	≥ 460 MPa	590 MPa	520 MPa
Tensile Strength, Rm:	550-680 MPa	645 MPa	590 MPa
Elongation, A5	≥ 20%	24%	26%
Impact energy, CV:	-20°C • >47 J	-20°C • 85 J	-20°C • 85 J

Classification:

EN 758	T 46 2 Mo M M 2 H5
EN ISO 17632	T 46 2 Mo M M 2 H5
AWS A5.28	E 80C-G

Approvals:

TÜV 09033.01

Product data:

Diam.mm	Product code	Spool weight
1,2	95911012	16 kg WBS

Note

PWHT: 620C X 1H