



Cromarod 82

SMAW - (Stick) - MMA
Stainless Steel

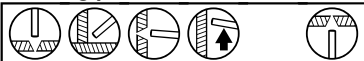
Date: 2008-12-19
Revision: 16

Description:

Cromarod 82 is a basic flux coated nickel-base electrode intended for welding Inconel 600 and similar composition alloys. The deposit tolerates high dilution levels and is very resistant to hot cracking. It is not susceptible to sigma phase embrittlement or carbon migration and is therefore ideal for service at elevated temperatures.

Cromarod 82 is highly suitable for a wide range of dissimilar joint combinations between nickel-base alloys, Monels, mild and low alloy steels and austenitic stainless steels. It can also be used to clad carbon steels with an Inconel type surface. The weld metal exhibits very good fracture toughness at temperatures down to -196 °C and is suitable for welding 5% and 9% nickel steels for cryogenic applications.

Welding positions:



Coating type:

Basic

Welding current:

DC +

Ferrite content:

FN 0 (WRC-92)

Corrosion resistance

Very good resistance to general and intergranular corrosion. Very good resistance to stress corrosion cracking.

High temperature properties:

The weld metal is resistant to oxidation

- in air up to 1150 °C

- in sulphur dioxide up to 800 °C

- in hydrogen sulphide up to 550 °C

Yield strength at 800 °C is approx. 190 MPa.

Redrying temperature:

350 °C, 2h

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0,2	4,0			18,0	63,0
Typical	0,03	0,4	5,5	0,005	0,005	18,5	bal.
Max	0,10	0,60	6,0	0,020	0,015	22,0	

	Mo	Cu	Nb	Fe
Min			1,5	
Typical	1,1		2,2	3,5
Max	2,0	0,5	3,0	4,0

Mechanical properties

	<u>Specified</u>	<u>Typical</u>
Yield strength, Rp0.2%:	≥ 380 MPa	400 MPa
Tensile Strength, Rm:	≥ 620 MPa	650 MPa
Elongation, A5	≥ 35%	40%
Impact energy, CV:	20 °C • ≥ 80 J	-196 °C • 60 J

Classification:

EN ISO 14172

E Ni 6082

AWS A5.11

E NiCrFe-3(mod.)

Approvals:

TÜV

CE

Note

AWS: Slight deviation in Cr compared to E NiCrFe-3

Produkt data:

Diam.mm	Length mm	Product code	Current A	Voltage V	Kg weld metal/ kg electrodes	No. of electrodes/ kg weld metal	Kg weld metal/ hour arc time	Burn-off time/ electrode (sec.)
2,5	300	74542500	50-70	25-27	0,60	100	0,8	46
3,2	300	74543200	70-95	25-27	0,62	58	1,1	59