Cromamig 82

GMAW - MIG MAG

Stainless Steel

Date: 2007-10-12
Revision: 7

Description:
Cromamig 82 is intended for welding Inconel 600, Incoloy 800 and similar composition nickel base alloys particularly where these are used for high temperature service. Highly suitable for a wide range of dissimilar joint combinations between nickel base alloys, Monels, mild and low alloy steels and austenitic stainless steels. Can be used to clad carbon steels with an Inconel type surface. Suitable for welding 5% and 9% nickel steels for cryogenic applications.

Welding current:
DC+

Wire composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			2,5			18,0	67,0
Typical	0,01	0,10	3,0	0,005	0,005	20,0	73,0
Max	0,05	0,50	3,5	0,030	0,015	22,0	

	Cu	Ti	Fe	Co	Nb[2]
Min					2,0
Typical	0,10	0,30	0,5		2,5
Max	0,50	0,75	3,0	0,12	3,0

Shielding gas:
I1, Ar 99.99%, 16-21 l/min
I3, Ar + 30% He, 20-25 l/min

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

Scaling temperature:
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

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0,01	0,10	3,0	0,005	0,005	20,0	73,0
Max							

	Cu	Ti	Fe	Nb[2]
Min				
Typical	0,10	0,15	0,5	2,5
Max				

[2] Nb + Ta

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:		400 MPa
Tensile Strength, Rm:	≥ 550 MPa	660 MPa
Elongation, A5		35%
Impact energy, CV:		20°C • 150 J
		–196°C • 80 J

Classification:

EN ISO 18274	S Ni 6082 (NiCr20Mn3Nb)
AWS A5.14	ERNiCr-3

Approvals:

Note

Ta max 0.30

Product data

Diam.mm	Product code	Dip Current A	Dip Voltage V	Spray Current A	Spray Voltage V
1,0	9818-2010	75-140	18-21	170-200	26-28
1,2	9818-2012	130-160	18-21	175-250	26-28