Cromamig 385

GMAW - MIG MAG
Stainless Steel

Date: 2008-01-22
Revision: 11

Description:
Cromamig 385 is intended for welding the 20% Cr / 25% Ni / 4.5% Mo / Cu fully austenitic stainless steels, used for their very high resistance to corrosion in severe, non-oxidising environments e.g. sulphuric acid. The low carbon, high alloy content of the weld metal gives excellent resistance to intergranular corrosion and stress corrosion cracking, combined with superior resistance to crevice and pitting corrosion compared to standard 304L and 316L materials.

Welding current:
DC+

Wire composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0,20	1,0			19,5	24,0
Typical	0,015	0,40	2,0	0,01	0,04	19,5	25,0
Max	0,025	0,50	2,5	0,020	0,030	21,5	26,0

	Mo	Cu	N
Min	4,2	1,2	
Typical	4,5	1,5	0,10
Max	5,2	2,0	0,15

Shielding gas:
Acc. to EN 439:
M11, Ar + 1-3% O2, 16-21 l/min
M12, Ar + 2% CO2, 16-21 l/min

Corrosion resistance
Very good resistance to general and intergranular corrosion in non-oxidising acid environments e.g. sulphuric (up to 90%), phosphoric and organic acids. Good resistance to stress corrosion cracking and crevice and pitting corrosion in chloride bearing environments.

Scaling temperature:
Approx. 1000°C in air.

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0,015	0,40	2,0	0,02	0,005	20,0	24,5
Max							

	Mo	Cu	N
Min			
Typical	4,5	1,5	0,06
Max			

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:	≥ 320 MPa	400 MPa
Tensile Strength, Rm:	≥ 520 MPa	580 MPa
Elongation, A5	≥ 30%	33%
Impact energy, CV:		20°C • 120 J
		–196°C • 50 J

Classification:

EN ISO 14343	G 20 25 5 Cu LN
AWS A5.9	ER385

Approvals:

Product data

Diam.mm	Product code	Dip Current A	Dip Voltage V	Spray Current A	Spray Voltage V
1,0	9814-2010	80-120	15-17	180-250	26-29
1,2	9814-2012	100-150	17-19	200-290	26-29