Cromatig 307Si

GTAW - TIG

Stainless Steel

Date: 2008-01-22
Revision: 9

Description:
Cromatig 307Si produces a tough, ductile, 19% Cr / 9% Ni / 7% Mn austenitic stainless weld metal which is highly crack resistant. It is intended for joining hardenable steels, armour plate, 13% Mn steels and difficult-to-weld steels, without the need for preheat. It is also recommended for dissimilar joints between stainless and mild or medium carbon steels. Welds produced with Cromatig 307Si can be PWHT without risk of sigma-phase formation and consequent loss of ductility. The deposit work hardens from 200 HV to 450 HV.

APPLICATIONS: Buffer layers on 13% Mn steels used in rock crushing and earth moving equipment, prior to hardfacing. Reclaiming 13% Mn steels. Surfacing of rails, rail crossings, frogs etc. Buffer layers in highly restrained repair work.

Welding current:
DC-

Wire composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0,65	5,5			17,0	7,5
Typical	0,08	0,85	7,0	0,025	0,02	19,0	9,0
Max	0,20	1,0	7,5	0,030	0,030	20,0	10,0

	Mo	Cu	N
Min			
Typical	0,2	0,2	
Max	0,3	0,3	0,07

Shielding gas:
Acc. to EN 439:
I1, Ar 99.99%, 6-12 l/min

Stamping
Elga, AWS, Wst, EN, Batch

Chemical composition, wt.%

	C	Si	Mn	Cr	Ni
Min					
Typical	0,08	0,8	7,0	18,0	8,0
Max					

Mechanical properties

	Specified	Typical
Yield strength, Rp0.2%:	≥ 350 MPa	450 MPa
Tensile Strength, Rm:	≥ 590 MPa	650 MPa
Elongation, A5	≥ 30%	42%
Impact energy, CV:		20°C • 120 J
		-80°C • 60 J

Classification:

EN ISO 14343	W 18 8 Mn
AWS A5.9	~ER307

Approvals:

Product data

Diam.mm	Length mm	Product code
1,6	1000	9824-1016
2,0	1000	9824-1020
2,4	1000	9824-1024

Note

AWS A5.9: Slight deviation in Cr, Mn and Si-content.