



Cromatig 309L

GTAW - TIG
Stainless Steel

Date: 2008-01-22
Revision: 8

Description:

Cromatig 309L deposits a 24% Cr / 13% Ni austenitic stainless steel weld metal with a ferrite content of about FN 11. The high alloy level and high ferrite content enables the weld metal to tolerate dilution from carbon and low alloy steels without hot cracking.

APPLICATIONS:

- Buffer layers on mild and low alloy steels prior to overlaying with MIG/TIG 308L.
- Joining of clad steels and dissimilar joints between stainless and mild or low alloy steels.
- Welding of similar composition, 309L type, stainless steels.
- Joining of ferritic-martensitic stainless steels.

Welding current:

DC-

Wire composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min		0,30	1,0			22,0	11,0
Typical	0,015	0,40	1,8	0,020	0,010	23,5	13,5
Max	0,030	0,65	2,5	0,030	0,020	25,0	14,0

	Mo	Cu	N
Min			
Typical	0,10	0,10	0,05
Max	0,30	0,30	

Shielding gas:

Acc. to EN 439:

I1, Ar 99.99%, 6-12 l/min

Stamping

Elga, AWS, Wst, EN, Batch

Ferrite content:

FN 10

Corrosion resistance

As Cromatig 309 L is usually used for buffer layers and dissimilar joints, corrosion resistance is of less importance. Two layers on mild steel is about equivalent to 304L type material.

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min							
Typical	0,015	0,4	1,7	0,015	0,01	23,5	13,5
Max							

	N
Min	
Typical	0.06
Max	

Mechanical properties

	<u>Specified</u>	<u>Typical</u>
Yield strength, Rp0.2%:	≥ 350 MPa	450 MPa
Tensile Strength, Rm:	≥ 520 MPa	650 MPa
Elongation, A5	≥ 30%	35%
Impact energy, CV:		20°C • 130 J

Classification:

EN ISO 14343 W 23 12 L
AWS A5.9 ER309 L

Approvals:

Product data

Diam.mm	Length mm	Product code
1,2	1000	9804-1012
1,6	1000	9804-1016
2,0	1000	9804-1020
2,4	1000	9804-1024
3,2	1000	9804-1032