



Cromatig 347Si

GTAW - TIG
Stainless Steel

Date: 2008-01-22
Revision: 12

Description:

Cromatig 347Si is primarily intended for welding the Nb or Ti stabilised 18% Cr / 10% Ni austenitic stainless steel grades 347 and 321. It is also suitable for the unstabilised grades of 304 and 304L. For structural applications at temperatures above 400°C, grade 308H is recommended because of its superior creep strength at elevated temperatures. The higher silicon content provides a more fluid weld pool which may be preferred for certain welding applications.

Welding current:

DC-

Wire composition, wt.%

| | C | Si | Mn | P | S | Cr | Ni |
|---------|------|------|-----|-------|-------|------|------|
| Min | | 0,65 | 1,0 | | | 19,0 | 9,0 |
| Typical | 0,04 | 0,8 | 1,8 | 0,015 | 0,010 | 19,5 | 9,5 |
| Max | 0,08 | 1,00 | 2,5 | 0,030 | 0,020 | 21,0 | 11,0 |

| | Mo | Cu | Nb ² |
|---------|------|------|-----------------|
| Min | | | 10xC |
| Typical | 0,10 | | 0,6 |
| Max | 0,30 | 0,30 | 1,0 |

Shielding gas:

Acc. to EN 439:

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

Stamping

Elga, AWS, Wst, EN, Batch

Ferrite content:

FN 7

Chemical composition, wt.%

| | C | Si | Mn | Cr | Ni | Nb ² |
|---------|------|-----|-----|------|-----|-----------------|
| Min | | | | | | |
| Typical | 0,04 | 0,8 | 1,8 | 19,0 | 9,5 | 0,5 |
| Max | | | | | | |

² Nb + Ta

Mechanical properties

| | <u>Specified</u> | <u>Typical</u> |
|-------------------------|------------------|-------------------------------|
| Yield strength, Rp0.2%: | ≥ 350 MPa | 400 MPa |
| Tensile Strength, Rm: | ≥ 520 MPa | 620 MPa |
| Elongation, A5 | ≥ 30% | 35% |
| Impact energy, CV: | | 20°C • 130 J -196°C • 40 J |

Classification:

EN ISO 14343
AWS A5.9

W 19 9 Nb Si
ER347Si

Approvals:

Product data

| Diam.mm | Length mm | Product code |
|---------|-----------|--------------|
| 1,6 | 1000 | 9822-1016 |
| 2,0 | 1000 | 9822-1020 |
| 2,4 | 1000 | 9822-1024 |
| 3,2 | 1000 | 9822-1032 |