



# CROMAROD® 625

SMAW - (Stick) - MMA  
Stainless Steel

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### Description:

CROMAROD® 625 is a basic flux coated nickel-base electrode intended for welding Inconel 625 and similar composition alloys which are primarily used for their excellent corrosion and oxidation resistance. They exhibit an exceptionally high resistance to pitting corrosion and chloride induced stress corrosion cracking. The electrode is very suitable for a wide range of dissimilar joint combinations between nickel-base alloys, mild and low alloy steels and stainless steels, especially where high temperature service conditions prevail. It can also be used to clad carbon steels with a high strength, highly corrosion resistant surface. CROMAROD® 625 weld metal gives good fracture toughness at temperatures down to -196 °C and is suitable for welding 5% and 9% nickel steels for cryogenic applications.

### Welding positions:



### Coating type:

Basic

### Welding current:

DC +

### Ferrite content:

FN 0 (WRC-92)

### Corrosion resistance

Very good resistance to general and intergranular corrosion. Maximum resistance (practically immune) to pitting corrosion, crevice corrosion and stress corrosion cracking in chloride bearing environments.

### High temperature properties:

Non-scaling in air up to 1150 °C. Very high tensile strength and yield strength up to approx. 850 °C (Rp 0.2% ~400 MPa).

### Redrying temperature:

350 °C, 2h

### Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0,5			21,0	58,0
Typical	0,03	0,3	0,6	0,005	0,005	22,4	bal.
Max	0,05	0,7	1,0	0,015	0,010	23,0	

	Mo	Cu	Nb	Fe
Min	8,0		3,15	
Typical	9,0		3,5	1,5
Max	10,0	0,3	4,0	1,8

### Mechanical properties

**Specified**      **Typical**

Yield strength, Rp0.2%:	≥ 450 MPa	530 MPa
Tensile Strength, Rm:	≥ 760 MPa	790 MPa
Elongation, A5	≥ 30%	40%
Impact energy, CV:	20°C • ≥ 50 J	20°C • 70 J -196 °C • 60 J

### Product data:

Diam.mm	Length mm	Current A	Voltage V	Kg weld metal/ kg electrodes	No. of electrodes/ kg weld metal	Kg weld metal/ hour arc time	Burn-off time/ electrode (sec.)
2,5	300	45-70	25	0,67	80	0,9	47
3,2	350	60-100	26	0,71	57	1,6	57
4,0	350	85-130	27	0,71	26	1,7	70
5,0	450	130-190	28	0,70	13	2,6	100

### Classification:

EN ISO 14172      E Ni 6625 (NiCr22Mo9Nb)  
AWS A5.11      E NiCrMo-3

### Approvals:

CE

### Note

Core wire:  
P ≤ 0.010%  
S ≤ 0.005%

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