



# Cromarod 312

SMAW - (Stick) - MMA  
Stainless Steel

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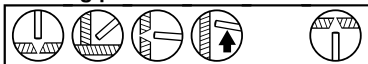
## Description:

Cromarod 312 is a rutile flux coated electrode which deposits a 29%Cr / 9%Ni austenitic/ferritic stainless steel weld metal with a ferrite content of approximately FN 50. The weld metal exhibits excellent tolerance to dilution from dissimilar and difficult-to-weld materials without hot cracking.

## Applications:

- Difficult-to-weld steels e.g. high carbon hardenable tool, die and spring steels, 13% Mn steels, free-cutting steels, high temperature steels (non-structural).
- Dissimilar joints between stainless and high carbon steels.
- Surfacing of metal-to-metal wear areas, hot working tools, furnace components.

## Welding positions:



## Coating type:

Rutile

## Welding current:

DC +, AC 0CV > 39V

## Ferrite content:

FN 50 (WRC-92)

## Corrosion resistance

Good resistance to sulphurous gases at high temperature. Good resistance to wet corrosion up to approximately 300°C.

## Scaling temperature:

Approx. 1100°C in air.

## Redrying temperature:

350°C, 2h

## Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0,5			28,0	9,0
Typical	0,10	1,2	0,8	0,02	0,02	28,8	9,7
Max	0,15	1,5	2,0	0,035	0,025	31,0	10,5

	Mo	Cu	V	Nb
Min				
Typical	0,2			
Max	0,5	0,5	0,1	0,1

## Mechanical properties

### Specified

### Typical

Yield strength, Rp0.2%:  $\geq 450$  N/mm<sup>2</sup>      590 N/mm<sup>2</sup>  
Tensile Strength, Rm:  $\geq 660$  N/mm<sup>2</sup>      760 N/mm<sup>2</sup>  
Elongation, A5  $\geq 22\%$       25%

## Product data

Diam.mm	Length mm	Product code	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.)
2,50	300	74382500	40-80	25	0,64	90	1,1	34
3,25	350	74383200	80-120	26	0,64	47	1,5	44
4,00	350	74384000	100-160	27	0,65	31	2,1	55
5,00	350	74385000	140-220	30	0,62	20	2,4	66

## Classification:

EN 1600-97	E 29 9 R 32
AWS A5.4-92	~E 312-17
BS 2926-84	29.9 R
DIN 8556-86	E 29.9 R 26
NF A81-343-79	~EZ 29.9 R 23

## Approvals:

SVK

## Note

All classifications: slight deviation in Si.

Core wire: P  $\leq 0.030\%$ , S  $\leq 0.030\%$ , N  $\leq 0.080\%$