



Cromarod 2507R

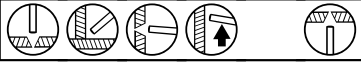
SMAW - (Stick) - MMA
Stainless Steel

Date: 2009-03-30
Revision: 14

Description:

Cromarod 2507R is a rutile flux coated electrode which deposits a 25%Cr/ 9.0%Ni / 4.0%Mo / 0.25%N super duplex type stainless steel weld metal with a ferrite content of approximately FN 57. The electrode is designed for welding similar composition steels e.g. SAF 2507, Uranus 52N, Zeron 100, which offer even higher strength and corrosion resistance levels than the ordinary duplex grades. A heat input range of 0.4-1.5 KJ/mm is recommended to maintain a favourable phase balance in the weld metal and avoid unfavourable precipitation effects in the plate. Applications include offshore platform pipework for seawater cooling systems and firefighting water, as well as pumps, valves and risers. Where good fracture toughness at temperatures down to -40 °C is required, use Cromarod 2507B.

Welding positions:



Coating type:

Rutile

Welding current:

DC +, AC 0CV > 39V

Ferrite content:

FN 57 (WRC-92)

Corrosion resistance

Very good resistance to pitting corrosion and stress corrosion cracking in chloride and H₂S environments. Good resistance to intergranular corrosion. Pitting resistance equivalent, PRE = 42. Critical pitting temperature CPT = 40 °C (ASTM G48).

Scaling temperature:

Approx. 850 °C in air.

Redrying temperature:

350 °C, 2h

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0,50			24,0	8,0
Typical	0,02	0,8	0,7	0,02	0,01	25,0	9,0
Max	0,04	1,0	2,5	0,030	0,025	27,0	10,0

	Mo	Cu	V	Nb	N
Min	3,3				0,20
Typical	4,0				0,23
Max	4,5	0,5	0,1	0,1	0,30

Mechanical properties

	<u>Specified</u>	<u>Typical</u>
Yield strength, Rp0.2%:	≥ 550 MPa	700 MPa
Tensile Strength, Rm:	≥ 760 MPa	900 MPa
Elongation, A5	≥ 18%	22%
Impact energy, CV:		20 °C • 35 J

Classification:

EN 1600	E 25 9 4 N L R 12
AWS A5.4	E2594-17
ISO 3581-A	E 25 9 4 N L R 12

Approvals:

CE
DNV

Note

Typical value: PRE 42, CPT 40 °C (ASTM G48)

Core wire: P ≤ 0.015%, S ≤ 0.001%, 0.14% ≤ N ≤ 0.16%

Produkt 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	74532500	60-90	22	0,50	110	1,1	31
3,25	350	74533200	80-120	23	0,55	53	1,5	47
4,00	350	74534000	130-170	24	0,55	35	2,3	46