



Cromacore 2507

FCAW - Flux cored arc welding
Stainless Steel

Date:	2014-03-21
Revision:	4

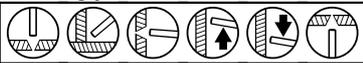
Description:

Cromacore 2507 is a rutile flux cored wire which deposits a 25%Cr/10%Ni/4%Mo/0.25%N super duplex type weld metal with a ferrite level of approximately FN 50. It 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. Cromacore 2507 may also be used for welding standard duplex steels when higher corrosion resistance in the weld metal is required. A heat input range of 0.5-2.5 KJ/mm is recommended to maintain a favourable phase balance in the weld metal and avoid deleterious precipitation effects in the plate. The weld metal has excellent fracture toughness at temperatures down to -40°C.

Applications:

Applications include offshore platform pipework for seawater cooling systems and firefighting water, as well as pumps, valves and risers.

Welding positions:



Welding current:

DC+

Deposition efficiency:

87%

Shielding gas:

M21, 80% Ar + 20% CO₂, 22-25 l/min.

C1, 100% CO₂, 22-25%

Stick-out:

20-25 mm

Ferrite content:

FN 48

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 = 42,8.

Critical pitting temperature CPT = 40°C (ASTM G48).

Chemical composition, wt.%

	C	Si	Mn	P	S	Cr	Ni
Min			0,5			24,0	8,00
Typical	0,03	0,50	1,20	0,02	0,005	25,9	9,7
Max	0,04	1,00	2,0	0,04	0,03	27,0	10,5

	Mo	Cu	V	N
Min	3,5			0,20
Typical	3,79	<0,1		0,25
Max	4,5	0,75	0,20	0,30

Mechanical properties

	<u>Specified</u>	<u>Typical</u>
Yield strength, Rp0.2%:		701 MPa
Tensile Strength, Rm:		906 MPa
Elongation, A5		27%
Impact energy, CV:		20°C • 59 J
		-40°C • 39 J

Classification:

AWS A5.22

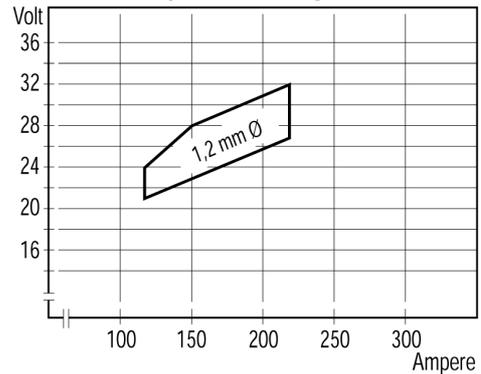
E2594T1-4/-1

ISO 17633-A

T 25 9 4 N L P M/C 1

Approvals:

Recommended parameter range:



Product data:

Diam.mm	Product code	Spool weight
1,2	95972012	12,5kg D300
1,2	95972112	5kg D200