

Avesta FCW 2507/P100-PW

Flux cored wire

Classifications

high-alloyed rutile

EN ISO 17633-A:

AWS A5.22:

T 25 9 4 N L P M21 2 ; T 25 9 4 N L P C 1 2

E2594T1-4 ; E2594T1-1

Characteristics and field of use

Avesta FCW 2507/P100-PW is designed for welding super duplex steels like 2507/1.4410 and similar grades for use down to -50°C . Super duplex steels are particularly popular for desalination, pulp & paper, flue gas cleaning and sea water system applications. Avesta FCW 2507/P100-PW is designed for all-round welding and can be used in all positions without changing the parameter settings. Weldability is excellent in the vertical up and overhead welding positions. Avesta FCW 2507/P100-PW should be welded using direct current positive polarity (DC+) with a recommended wire stick-out of 15 – 20 mm. The weldability of duplex and super duplex steels is excellent, but the welding should be adapted to the base material, considering fluidity, joint design, heat input etc.

Corrosion resistance:

Very good resistance to pitting and stress corrosion cracking in chloride containing environments. PREN >41. Meets the corrosion test requirements per ASTM G48 Methods A, B and E (40°C).

Base materials

For welding steels such as	EN	ASTM	BS	NF	SS
Outokumpu					
2507	1.4410	S32750	-	Z3 CND 25-06 Az	2328
4501	1.4501	S32760	-	-	-

Typical composition of all-weld metal (Wt-%)


C	Si	Mn	Cr	Ni	Mo	N
0.03	0.7	0.9	24.7	9.8	3.7	0.23

Ferrite 40 FN WRC-92

Mechanical properties of all-weld metal

Heat Treatment	Yield strength 0.2%	Tensile strength	Elongation ($L_0=5d_0$)	Impact values in J CVN	
	MPa	MPa	%	+20°C:	-40°C:
untreated	670	890	26	50	32

Operating data

	Polarity = +	Shielding gas: Ar + 15 – 25% CO ₂ offers the best weldability, but 100% CO ₂ can also be used (voltage should be increased by 2V). Gas flow rate 20 – 25 l/min.
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Dimensions (mm)	Amperage A
1.2	150-240