

Classifications

high-alloyed rutile

EN ISO 17633-A:

AWS A5.22:

T 22 9 3 N L R M21 3 ; T 22 9 3 N L R C1 3

E2209T0-4 ; E2209T0-1

Characteristics and field of use

Avesta FCW-2D 2205 is primarily designed for welding duplex stainless steels such as 2205. Avesta FCW-2D 2205 provides excellent weldability in flat as well as horizontal/vertical position. Welding in vertical-up and overhead positions is preferably done using FCW 2205-PW. Avesta FCW-2D 2205 should be welded using direct current positive polarity (DC+) with a recommended wire stick-out of 15 – 20 mm. The weldability of 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 >35. Meets the corrosion test requirements per ASTM G48 Methods A, B and E (22°C), ASTM G36 and NACE TM 0177 Method A.

Base materials

For welding steels such as					
Outokumpu	EN	ASTM	BS	NF	SS
2205	1.4462	S32205	318S13	Z3 CND 22-05 Az	2377

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


C	Si	Mn	Cr	Ni	Mo	N
0.025	0.7	0.9	22.9	9.2	3.2	0.13

Ferrite 45 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	
				+20°C:	-40°C:
untreated	615	800	25	60	40

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	125-280
1.6	200-350