

Classifications

EN ISO 3581-A	AWS A5.4
E 22 9 3 N L R	E2209-17

Characteristics and typical fields of application

Avesta 2205-PW is a duplex electrode with a coating optimized for the vertical-up and overhead position welding of duplex 2205 type steel.

The weldability of duplex steels is excellent but the welding should be adapted to the base material, considering fluidity, joint design, heat input etc. For detailed welding recommendations, please see "How to weld duplex stainless steels" or contact voestalpine Böhler Welding.

Thanks to the sharp and concentrated arc, PW electrodes are extremely suitable for maintenance and repair welding, especially when joint surfaces are not particularly clean.

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, E (22°C), ASTM G36, and NACE TM 0177 Method A.

Base materials

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
wt-%	0.02	0.8	0.8	23.0	9.5	3.1	0.18

Mechanical properties of all-weld metal

Heat-treatment	Yield strength R _e N/mm ²	Tensile strength R _m N/mm ²	Elongation (L ₀ =5d ₀)	Impact work ISO-V KV J		Hardness
	MPa	MPa	%	+20 °C	-46°C	HB
u	680	860	25	55	35	240

u untreated, as-welded

Operating data

	Polarity: DC (+)	Electrode identification:	ø (mm)	L mm	Amps A
			2.0		35 – 60
			2.5		50 – 80
			3.25		70 – 110
			4.0		100 – 160
			5.0		160 – 220

Approvals

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