

2205-PW AC/DC

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

Standard designations

EN 1600	E 22 9 3 N L R
AWS A5.4	E2209-17

Characteristics

AVESTA 2205-PW is an all-position electrode with special advantages in the vertical-up and overhead positions. The electrode is designed for welding duplex steel of the 2205 type. For light to moderate thickness material, welding should be carried out as for ordinary austenitic stainless steel. However, the somewhat lower penetration and fluidity of the weld should be considered.

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.

Welding data

DC+ or AC	Diam. mm	Current, A
	2.0	35 – 60
	2.5	50 – 80
	3.25	70 – 110
	4.0	100 – 160
	5.0	160 – 220

Weld deposit data at maximum welding current

Electrode diam. mm	length mm					Metal recov. ~ %
		N	B	H	T	
2.0	250	0.63	182	0.71	28	107
2.5	300	0.66	95	0.99	38	106
3.25	350	0.62	42	1.65	52	115
4.0	350	0.65	28	2.43	52	115
5.0	350	0.67	18	3.30	61	115

Typical analysis % (All weld metal)

C	Si	Mn	Cr	Ni	Mo	N
0.02	0.8	0.8	23.0	9.5	3.0	0.17

Ferrite 30 FN WRC-92

Mechanical properties

	Typical values (IIW)	Min. values EN 1600
Yield strength $R_{p0.2}$	635 N/mm ²	450 N/mm ²
Tensile strength R_m	830 N/mm ²	550 N/mm ²
Elongation A_5	25 %	20 %
Impact strength KV		
+20°C	55 J	
-40°C	40 J	
Hardness approx.	240 Brinell	

Interpass temperature: Max. 150°C.

Heat input: 0.5 – 2.5 kJ/mm.

Heat treatment: Generally none (in special cases quench annealing at 1100 – 1150°C).

Structure: Austenite with approx. 30% ferrite.

Scaling temperature: Approx. 850°C (air).

Corrosion resistance: Very good resistance to pitting and stress corrosion cracking in chloride containing environments.

Approvals

- CWB
- DNV
- TÜV

Welding positions

