Thermanit 22/09 W

Stick electrode, high-alloyed, stainless, rutile

Classifications

EN ISO 3581-A	AWS A5.4	Mat. No.
E 22 9 3 N L R 3 2	E2209-17	≈1.4462

Characteristics and typical fields of application

Stainless; resistant to intercrystalline corrosion at max. application temperature 250 °C (482 °F). Good resistance to stress corrosion cracking in chlorine- and hydrogen sulphide bearing environments. High Cr and Mo contents provide resistance to pitting corrosion. For joining and surfacing work with matching and similar austenitc steels/cast steel grades. Attention must be paid to embrittlement susceptibility of the parent metal.

Base materials

TÜV certified parent metal
1.4462 – X2CrNiMoN22-5; UNS 31803, S32205

Typical analysis of all-weld metal (wt.-%)

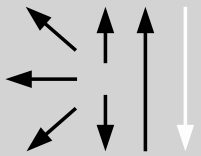
	C	Si	Mn	Cr	Mo	Ni	N
wt-%	< 0.04	< 0.9	0.9	22.5	3.0	9.0	0.15

Structure: Austenite/ferrit

Mechanical properties of all-weld metal

Heat-treatment	Yield strength $R_{p0.2}$	Yield strength $R_{p1.0}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J
	MPa	MPa	MPa	%	+20 °C
aw	480	520	690	25	50

Operating data



Polarity:	ø (mm)	L mm	Amps A
DC (+) / AC	2.5	350	40 – 75
	3.2	350	70 – 110
	4.0	350	110 – 140
	5.0	450	140 – 190

Welding instruction

Materials	Preheating	Postweld het treatment
Matching / similar steels / cast steel grades	Keine	Mostly none; if necessary solution annealing at 1050 °C (1922 °F) / water or air

Approvals

TÜV (03297) ABS, DNV, GL, LR, CE