Thermanit HW

Stick electrode, high-alloyed, stainless, rutile

Classifications

EN ISO 3581-A	AWS A5.4	Mat. No.
E 19 9 Nb R 3 2	E347-17	1.4551

Characteristics and typical fields of application

Stainless; resistant to intercrystalline corrosion and wet corrosion up to 400 °C (752 °F). Corrosion resistant similar to matching stabilized austenitic CrNi(N) steels / cast steel grades.

For joining and surfacing with matching and similar – non stabilized and stabilized – austenitic CrNi steels / cast steel grades.

Base materials

TÜV certified parent metal

1.4550 – X6CrNiNb18-10

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

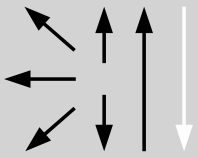
	C	Si	Mn	Cr	Ni	Nb
wt-%	< 0.07	< 0.9	0.8	19.5	10.0	> 10xC

Structure: Austenite with part ferrite

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	380	410	550	30	55

Operating data



Polarity:	ø (mm)	L mm	Amps A
DC (+) / AC	2.0	300	40 – 60
	2.5	350	50 – 90
	3.2	350	80 – 120
	4.0	350	110 – 160
	5.0	450	140 – 200

Welding instruction

Materials	Preheating	Postweld heat treatment
Matching / similar steels / cast steel grades	None	Mostly none. If necessary, solution annealing at 1020 °C (1868 °F)

Approvals

TÜV (00608), CE