Thermanit H-347

TIG rods, high-alloyed, stainless

Classifications			
EN ISO 14343-A	EN ISO 14343-B	AWS A5.9	Mat. No.
W 19 9 Nb	SS347	ER347	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 steels/cast steel grades.
For joining and surfacing application with matching and similar – stabilized and non-stabilized – austenitic CrNi(N) steels and cast steel grades.

Base materials

TÜV-certified parent metal

1.4550 – X6CrNiNb18-10 and the parent metals also covered by VdTÜV-Merkblatt 1000.
AISI 347, 321, 302, 304, 304L, 304LN

ASTM A296 Gr. CF8, A157 Gr. C9; A320 Gr. B8C oder D

Typical analysis of the TIG rods (wt.-%)

	C	Si	Mn	Cr	Ni	Nb
wt-%	0.05	0.5	1.8	19.5	9.5	≥ 12xC

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	400	430	570	30	65

Operating data

Polarity:	Shielding gas:	Marks:	ø (mm)	L mm
DC (–)	(EN ISO 14175) I 1	W 19 9 Nb / ER347	1.0	1000
			1.6	1000
			2.0	1000
			2.4	1000
			4.0	1000

Welding instruction

Materials	Preheating	Postweld heat treatment
Matching and similar steels / cast steel grades	None	None. Otherwise solution annealing at 1020 °C (1868 °F)

Approvals

TÜV (09475), DB (43.132.21), CE