

Classifications

EN ISO 14343-A	AWS A5.9 / SFA-5.9
W 19 9 Nb Si	ER347Si

Characteristics and typical fields of application

TIG rod of W 19 9 Nb Si/ ER347Si type for joining and surfacing application with matching and similar stabilized and non-stabilized austenitic CrNi(N)-steels and cast steel grades.

Max. service temperature 400°C. Corrosion resistance similar to matching stabilized austenitic CrN-steels .

Base materials

1.4301 X5CrNi18-10, 1.4306 X2CrNi19-11, 1.4311 X2CrNiN18-9, 1.4312 GX10CrNi18-8, 1.4541 X6CrNiTi18-10, 1.4546 X5CrNiNb18-10, 1.4550 X6CrNiNb18-10, 1.4552 GX5CrNiNb19-11
UNS S30400, S30403, S30453, S32100, S34700
AISI 347, 321,302, 304, 304L, 304LN

Typical analysis

	C	Si	Mn	Cr	Ni	Nb
wt.-%	0.05	0.85	1.2	19.5	10	≥ 12×C

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength R _{p0.2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact energy ISO-V KV J
	MPa	MPa	%	20°C
u	400 (≥ 350)	570 (≥ 550)	30 (≥ 25)	65

u untreated, as-welded – shielding gas I1

Operating data

	Polarity	DC-	Dimension mm
	Shielding gas (EN ISO 14175)	I1	0.8
			1.6 x 1000
			2.0 x 1000
			2.4 x 1000

Suggested heat input is max. 1.5 kJ/mm and interpass temperature max. 100°C.

Generally no heat treatment needed.

Approvals

TÜV (19610), DB (43.132.85), CE