BÖHLER AWS ER316LSi

TIG rods, high-alloyed, stainless

Classifications

EN ISO 14343-A	EN ISO 14343-B	AWS A5.9	Mat. No.
W 19 12 3 L Si	SS316LSi	ER316LSi	1.4430

Characteristics and typical fields of application

Stainless; resistant to inter-crystalline corrosion. Corrosion-resistant up to 400 °C.

For joining and surfacing application with matching and similar – non-stabilized and stabilized – austenitic CrNi(N) and CrNiMo(N) steels and cast steel grades.

Base materials

TÜV-certified parent metal

1.4401 - X5CrNiMo17-12-2; 1.4404 - X2CrNiMo17-12-2; 1.4435 - X2CrNiMo18-14-3; 1.4436 - X3CrNiMo17-13-3; 1.4571 - X6CrNiMoTi17-12-2; 1.4580 - X6CrNiMoNb17-12-2; 1.4583 - X10CrNiMoNb18-12; 1.4409 - GX2CrNiMo19-11-2;

UNS S31603; S31653; AISI 316L; 316Ti; 316Cb

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

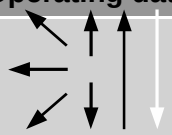
	C	Si	Mn	Cr	Ni	Mo
wt-%	0.02	0.8	1.7	18.5	12.3	2,6

Structure: Austenite with part ferrite

Mechanical properties of all-weld metal

Heat-treatment	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V CVN J	
	MPa	MPa	%	+20 °C	–196 °C
aw	450	580	35	100	≥ 32

Operating data



Polarity:	Shielding gas:	Marks:	ø mm	L mm
DC (–)	(EN ISO 14175) I 1	W 19 12 3LSi / ER316LSi	1.6	1000
			2.0	1000
			2.4	1000
			3.2	1000

Welding instruction

Materials	Preheating	Postweld heat treatment
Matching and similar non-stabilized and stabilized steels / cast steel grades	Keine	Mostly none. If necessary, solution annealing at 1050°C (1922°F) – pay attention to tendency to embrittlement

Approvals