Thermanit JE-308L Si

Solid wire, high-alloyed, austenitic stainless

Classifications

EN ISO 14343-A	AWS A5.9 / SFA-5.9
G 19 9 L Si	ER308LSi

Characteristics and typical fields of application

Solid wire of G 19 9 L Si / ER308LSi type for joining and surfacing applications with matching and similar stabilized and unstabilized austenitic CrNi(N) and CrNiMo(N)-steels and cast steel grades. Corrosion resistance similar to matching low-carbon and stabilized austenitic 18Cr8Ni(N)-steels. The wire shows very good wetting and feeding characteristics, with excellent weld metal toughness down to –196ºC. Application temperature max. 350ºC.

Base materials

1.4306 X2CrNi19-11, 1.4301 X5CrNi18-10, 1.4311 X2CrNiN18-10, 1.4312 GX10CrNi18-8, 1.4541 X6CrNiTi18-10, 1.4546 X5CrNiNb18-10, 1.4550 X6CrNiNb18-10
AISI 304, 304L, 304LN, 302, 321, 347

Typical analysis

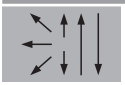
	C	Si	Mn	Cr	Ni
wt.-%	≤0.02	0.9	1.7	20	10.2

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	–196°C
u	390 (≥ 320)	540 (≥ 510)	38 (≥ 35)	110	46 (≥ 32)

u untreated, as-welded – shielding gas Ar + 2.5% CO_2

Operating data



Polarity	DC+
Shielding gas (EN ISO 14175)	M11, M12, M13 M22 max. 5% O_2 M23 max. 5% CO_2, 5% O_2

Dimension mm
0.8
0.9
1.0
1.2
1.6

Suggested heat input is max. 2.0 kJ/mm and interpass temperature max. 150ºC.
Post-weld heat treatment generally not needed. In special cases solution annealing at 1000ºC followed by water quenching.

Approvals

TÜV (00555), DB (43.132.08), DNV, ABS, NAKS, CE