

Classifications

EN ISO 14343-A	EN ISO 14343-B	AWS A5.9
G 19 12 3 L Si	SS316LSi	ER316LSi

Characteristics and typical fields of application

Solid wire of G 19 12 3 L Si / ER316LSi type for joining and surfacing application with matching and similar non-stabilized austenitic CrNi(N) and CrNiMo(N) steels and cast steel grades. Corrosion resistance similar to matching low-carbon and stabilized austenitic CrNiMo-steels and cast steel grades. Max. service temperature 400°C. Low temperature service down to -196°C.

Base materials

1.4401 X5CrNiMo17-12-2, 1.4404 X2CrNiMo17-12-2, 1.4409 GX2CrNiMo19-11-2, 1.4429 X2CrNiMoN17-12-3, 1.4432 X2CrNiMo17-12-3, 1.4435 X2CrNiMo18-14-3, 1.4436 X3CrNiMo17-12-3, 1.4571 X6CrNiMoTi17-12-2, 1.4580 X6CrNiMoNb17-12-2, 1.4583 X10CrNiMoNb18-12
UNS S31600, S31603, S31635, S31640, S31653
AISI 316L, 316Ti, 316Cb

Typical analysis of solid wire

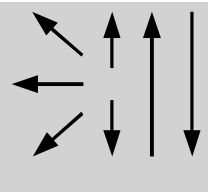
	C	Si	Mn	Cr	Mo	Ni
wt-%	0.02	0.8	1.7	18.4	2.8	12.4

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 values ISO-V CVN J	
	MPa	MPa	%	+20 °C	-196 °C
u	430 (≥ 320)	580 (≥ 510)	38 (≥ 25)	120	45 (≥ 32)

u untreated, as-welded – shielding gas Ar + 2.5% CO₂

Operating data

	Polarity: DC +	Shielding gas: (EN ISO 14175) M12, M13	ø mm	Spool: BS300 Drum: BASEdrum ECOdrum
			0.8	
			1.0	
			1.2	
1.6				

Approvals

TÜV (00489), DB (43.132.10), DNV GL, ABS, LR (spec. list), NAKS, CE