

Classifications

EN ISO 14343-A	EN ISO 14343-B	AWS A5.9
W 19 12 3 L	SS316L	ER316L

Characteristics and typical fields of application

GTAW rod of type W 19 12 3 L / ER316L engineered to a very precise analysis to create a weld deposit of high purity, superior hot cracking a corrosion resistance.

CVN toughness down to $-196\text{ }^{\circ}\text{C}$, resistant to intergranular corrosion up to $+400\text{ }^{\circ}\text{C}$.

Base materials

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 GX2CrNiMo 19-11-2
UNS S31603, S31653; AISI 316L, 316Ti, 316Cb

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

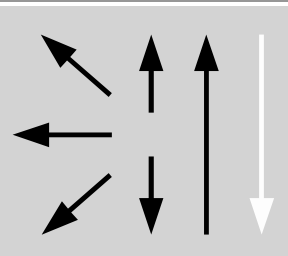
	C	Si	Mn	Cr	Ni	Mo
wt.-%	≤ 0.02	0.5	1.8	18.5	12.3	2.8

Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0,2}$	Tensile strength R_m	Elongation ($L_0=5d_0$)	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	-196 °C
u	470 (≥ 320)	610 (≥ 510)	38 (≥ 25)	140	≥ 32

u untreated, as welded – shielding gas Argon

Operating data

	Polarity: DC (-)	Shielding gas: 100 % Argon	Rod marking: front: ✦ W 19 12 3 L back: ER 316 L	Dimensions (mm) 0.8 1.0 1.2
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Approvals

TÜV (00149), DB (43.014.12), DNV (316L), GL (4429), SEPROZ, NAKS (\emptyset 2.4; 3.0), CE

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