

Classifications

EN ISO 14343-A	EN ISO 14343-B	AWS A5.9
W 19 12 3 Nb	SS318	ER318

Characteristics and typical fields of application

GTAW rod of type W 19 12 3 Nb / ER318 engineered to a very precise analysis to create a weld deposit of high purity, superior hot cracking a corrosion resistance.

CVN toughness down to $-120\text{ }^{\circ}\text{C}$, resistant to intergranular corrosion up to $+400\text{ }^{\circ}\text{C}$.

Base materials

1.4571 X6CrNiMoTi17-12-2, 1.4580 X6CrNiMoNb17-12-2, 1.4401 X5CrNiMo17-12-2, 1.4581 GX5CrNiMoNb19-11-2, 1.4437 GX6CrNiMo18-12, 1.4583 X10CrNiMoNb18-12, 1.4436 X3CrNiMo17-13-3
AISI 316L, 316Ti, 316Cb

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

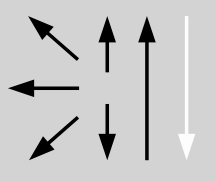
	C	Si	Mn	Cr	Ni	Mo	Nb
wt-%	0.035	0.45	1.7	19.5	11.4	2.7	+

Mechanical properties of all-weld metal

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	-120 °C
u	520 (≥ 350)	700 (≥ 550)	35 (≥ 25)	120	≥ 32

u untreated, as welded – shielding gas Argon

Operating data

	Polarity: DC (-)	Shielding gas: 100 % Argon	Rod marking: front: ✦ W 19 12 3 Nb back: ER 318	ø (mm)
				1.0
				1.2
				1.6
				2.0
				2.4
3.0				

Approvals

TÜV (00236.), KTA 1408.1 (8046.00), DB (43.014.03), GL (4571), SEPROZ, NAKS ($\varnothing 2.0$; 2.4; 3.0), CE