

## Classifications

EN ISO 14343-A

W 19 12 3 L

AWS A5.9 / SFA-5.9

ER316L

## Characteristics and typical fields of application

TIG rod of W 19 12 3 L / ER316L type with controlled weld metal ferrite content (3-6 FN), particularly for good cryogenic toughness and lateral expansion down to -196°C. Max. service temperature 400°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

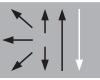
	C	Si	Mn	Cr	Ni	Mo	FN
wt.-%	≤ 0.02	0.35	1.8	18.5	12.3	2.8	3 – 6

## Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength R <sub>p0.2</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact energy ISO-V KV J	Lateral expansion mm
	MPa	MPa	%	-196°C	-196°C
u	450 (≥ 320)	580 (≥ 510)	35 (≥ 25)	≥ 32	≥ 0.38

u untreated, as-welded – shielding gas Ar

## Operating data

	Polarity	DC-	<b>Dimension mm</b>  1.6 x 1000 2.4 x 1000
	Shielding gas (EN ISO 14175)	I1	
	Rod marking	+ W 19 12 3 L (LF) / ER 316 L (LF)	

## Approvals

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