

## Classifications

<b>EN ISO 14343-A</b>	<b>AWS A5.9 / SFA-5.9</b>
W 19 12 3 L Si	ER316LSi

## Characteristics and typical fields of application

TIG rod W 19 12 3 L Si / ER316LSi for joining and surfacing application with matching and similar unstabilized austenitic steels and cast steel grades. Good corrosion resistance. High metal toughness down to  $-196^{\circ}\text{C}$ . Max. service temperature  $400^{\circ}\text{C}$ .

## 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  
UNS S31600, S31603, S31635, S31640, S31653  
AISI 316L, 316Ti, 316Cb

## Typical analysis

	C	Si	Mn	Cr	Ni	Mo	Ferrit
wt.-%	0.02	0.9	1.7	18.5	12.0	2.6	7 FN (WRC-92)

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

Condition	Yield strength	Tensile strength	Elongation A	Impact energy ISO-V KV J		Hardness
	$R_{p0.2}$	$R_m$	$(L_0=5d_0)$	20°C	$-196^{\circ}\text{C}$	
	MPa	MPa	%			HB
u	470 ( $\geq 320$ )	610 ( $\geq 510$ )	31 ( $\geq 25$ )	140 ( $\geq 25$ )	58 ( $\geq 32$ )	210

## Operating data

	<b>Polarity</b>	DC -	<b>Dimension mm</b>
	<b>Shielding gas</b>	I1 (Ar)	1.6 x 1000
	<b>(EN ISO 14175)</b>		2.0 x 1000
			2.4 x 1000
			3.2 x 1000

## Approvals

TÜV, DB, CE