

Classifications

EN ISO 14343-A	AWS A5.9 / SFA-5.9
W 19 9 L	ER308L

Characteristics and typical fields of application

TIG rod W 19 9 L / ER308L for joining and surfacing applications with matching and similar austenitic steels and cast steel grades. Good corrosion resistance. High weld metal toughness down to -196°C .
Application temperature max. 350°C .

Base materials

1.4301 X5CrNi18-10, 1.4306 X2CrNi19-11, 1.4307 X2CrNi18-9, 1.4311 X2CrNiN18-9, 1.4312 GX10CrNi18-8, 1.4541 X6CrNiTi18-10, 1.4546 X5CrNiNb18-10, 1.4550 X6CrNiNb18-10
UNS S30400, S30403, S30453, S32100, S34700
AISI 304, 304L, 304LN, 302, 321, 347

Typical analysis

	C	Si	Mn	Cr	Ni
wt.-%	≤ 0.02	0.5	1.8	20	10.0

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 energy ISO-V KV J	
	MPa	MPa	%	20°C	-269°C
u	400 (≥ 320)	550 (≥ 510)	38 (≥ 25)	150	75 (≥ 32)

u untreated, as-welded – shielding gas Ar

Operating data

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

Approvals

TÜV (19792), DB (43.132.90), CE