

Classifications

EN ISO 14343-A	EN ISO 14343-B	AWS A5.9	Mat. No.
W 19 9 L	SS308L	ER308L	1.4316

Characteristics and typical fields of application

Stainless; resistant to inter-crystalline corrosion. Corrosion-resistant up to 350 °C. High toughness down to -196 °C

For joining and surfacing applications with matching and similar – stabilized and non-stabilized – austenitic CrNi(N) and CrNiMo(N) steels / cast steel grades. For joining and surfacing work on cryogenic matching / similar austenitic CrNi(N) steels / cast steel grades.

Base materials

TÜV-certified parent metal

1.4301 - X5CrNi18-10; 1.4306 - X2CrNi19-11; 1.4311 - X2CrNi18-10; 1.4312 - GX10CrNi18-8; 1.4541 - X6CrNiTi18-10; 1.4546 - X5CrNiNb18-10; 1.4550 - X6CrNiNb18-10;

AISI 304, 304L, 304LN, 302, 321, 347; ASTM A157 Gr. C9, A320 Gr. B8C or D

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

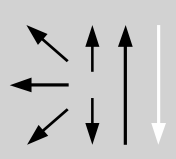
	C	Si	Mn	Cr	Ni
wt-%	0.02	0.5	1.7	20.0	10.0

Structure: Austenite with part ferrite

Mechanical properties of all-weld metal

Heat-treatment	Yield strength R _{p0.2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V CVN J	
	MPa	MPa	%	+20 °C	-196 °C
aw	400	570	35	100	35

Operating data

	Polarity:	Shielding gas:	Marks:	ø mm	L mm
	DC (-)	(EN ISO 14175) I1, I3	✦ W 19 9L / ER308L	1,6	1000
				2,0	1000
				2,4	1000
				3,2	1000

Approvals

TÜV (12939), DB (43.132.40), CE