

Classifications

EN ISO 3581-A	AWS A5.4	Mat. No.
E 19 12 3 L R 1 5	E316L-16	1.4430

Characteristics and typical fields of application

Stainless; resistant to intercrystalline corrosion and wet corrosion up to 400 °C (752 °F). Corrosion resistant similar to matching low carbon and stabilized austenitic 18/8 CrNiMo steels / cast steel grades.

For joining of matching and similar austenitic CrNi(N)- and CrNiMo(N) steels/cast steel grades. Well suited for vertical-down welding position.

Base materials

1.4583 – X10CrNiMoNb18-12; S31653; AISI 316L, 316Ti, 316Cb

Typical analysis of all-weld metal (wt.-%)

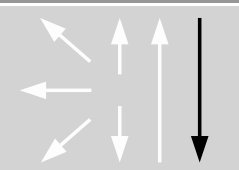
	C	Si	Mn	Cr	Mo	Ni
wt-%	0.02	0.7	0.8	18.5	2.6	11.5

Structure: Austenite with part ferrite

Mechanical properties of all-weld metal

Heat-treatment	Yield strength R _{p0.2}	Yield strength R _{p1.0}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J	
	MPa	MPa	MPa	%	+20 °C	-105 °C
aw	320	350	550	35	55	35

Operating data

	Polarity: DC (+) / AC	ø (mm) 3.2	L mm 300	Amps A 105 – 115
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Welding instruction

Materials	Preheating	Postweld heat treatment
Matching non stabilized and stabilized austenitic steels	None	Mostly none. If necessary, solution annealing at 1050 °C (1922 °F) – pay attention to susceptibility to embrittlement

Approvals

TÜV (09092), CE