

KESTRA 4435 LCW

Stick electrode, high-alloyed, stainless, rutile



Classifications

EN ISO 3581-A	EN ISO 3581-B	AWS A5.4
E 19 12 3 L R 3 2	ES316L-16	E316L-17

Characteristics and typical fields of application

Stainless; resistant to intercrystalline corrosion and wet corrosion up to 400 °C (752 °). Corrosion resistant similar to matching low carbon and stabilized austenitic 18/8 CrNiMosteels / cast steel grades. For joining and surfacing applications with matching/similar – non stabilized and stabilized – austenitic CrNi(N) and CrNiMo(N) steels / cast steel grades.

Base materials

TÜV certified parent metals
1.4429 – X2CrNiMoN17-13-3; 1.4583 – X10CrNiMoNb18-12; S31653; AISI 316L, 316Ti, 316Cb

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

C	Mn	Si	Cr	Ni	Mo
0.03	0.8	0.8	18.8	11.5	2.7

Structure: Austenite with part ferrite

Mechanical properties of all-weld metal – typical values (minimum values)

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	-120°C
u	460 (≥ 320)	600 (≥ 510)	36 (≥ 25)	70	≥ 32	≥ 32

u: untreated, as welded

Operating data

	Ø (mm)	Polarity: DC (+) / AC	L mm	Amps A
	2.0		300	40 - 60
	2.5		300	50 - 90
	3.2		350	80 - 120
	4.0		350	110 - 160
	5.0		450	140 - 200

Welding instruction

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

Approvals

TÜV (00798) • DB (30.132.18) • CE