BÖHLER FOX EAS 4 M-VD

Covered electrode, high-alloyed, austenitic stainless

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 19 12 3 L R 1 5	E316L-17

Characteristics and typical fields of application

Rutile-basic coated, core wire alloyed electrode of E 19 12 3 L R / E316L-17 type for welding of austenitic stainless steel such as 1.4404 and 1.4436 / 316L. Especially designed with a fast-freezing slag for vertical-down welding in sheet metal fabrication. When using same electrode diameter and same wall thickness, it is possible to save up to 50% of the welding time as compared to the vertical-up position. Fast travel speed resulting in low heat input and little distortion minimizes straightening work. When welding vertical-down, there is less risk for overheating the base metal and therefore lower risk of impaired corrosion resistance. Max. service temperature 400ºC.

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, 1.4580 X6CrNiMoNb17-12-2, 1.4583 X10CrNiMoNb18-12
UNS S31600, S31603, S31635, S31640, S31653
AISI 316L, 316Ti, 316Cb

Typical analysis

	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.03	0.7	0.7	19	12	2.7

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	–40°C	–120°C
u	470 (≥ 320)	600 (≥ 510)	35 (≥ 25)	55	55 (≥ 32)	32 (≥ 27)

u untreated, as-welded

Operating data

Polarity	DC+	Dimension mm	Current A
Electrode identification	FOX EAS 4 M-VD 316L-17 E19 12 3 LR	2.5 × 300	75 – 85
		3.2 × 300	105 – 115

Suggested heat input is max. 2.0 kJ/mm and interpass temperature max. 150ºC.
Post-weld heat treatment generally not needed. In special cases, solution annealing can be performed at 1050ºC followed by water quenching.
Re-drying if necessary at 120 – 200ºC for min. 2 h.

Approvals

TÜV (06907), DNV, CWB, CE