BÖHLER EAS 2-FD

Flux-cored wire, high-alloyed, austenitic stainless

Classifications

EN ISO 17633-A	EN ISO 17633-B	AWS A5.22
T 19 9 L R M21/C1 3	TS 308L-F M21/C1 0	E308LT0-4/-1

Characteristics and typical fields of application

Rutile strip-alloyed flux-cored wire of T 19 9 L R / E308LT0 type for welding of stainless steels such as EN 1.4306 / AISI 304L. Easy handling and high deposition rate result in high productivity with excellent welding performance and very low spatter formation. Increased travel speeds as well as self-releasing slag with little demand for cleaning and pickling provide considerable savings in time and money. The wire shows good wetting behavior and results in a finely rippled surface pattern. The wide arc ensures even penetration and side-wall fusion to prevent lack of fusion. Suitable for service temperatures from –196°C to 350°C.

BÖHLER EAS 2-FD Ø 0.9 mm is well suitable for welding of sheet metal > 1.5 mm and BÖHLER EAS 2-FD Ø 1.2 mm can be used for a wall thickness ≥ 3 mm. For welding in vertical-up and overhead positions, BÖHLER EAS 2 PW-FD should be preferred.

Base materials

EN 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; ASTM A157 Gr. C9, A320 Gr. B8C or D

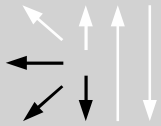
Typical analysis of all-weld metal						Ferrite WRC-92
	C	Si	Mn	Cr	Ni	FN
wt.-%	0.03	0.7	1.5	19.8	10.5	3 – 10

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

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J		
	MPa	MPa	%	20°C	–120°C	–196°C
u	**360** (≥ 320)	**530** (≥ 520)	**40** (≥ 30)	**60**	**41**	**35** (≥ 32)

u untreated, as welded – Ar + 18 % CO_2

Operating data



Ø (mm)	Wire feed m/min	Arc length mm	Current A	Voltage V
1.2	5.0 – 15.0	~ 3	130 – 280	22 – 30
1.6	4.5 – 9.5	~ 3	200 – 350	25 – 30

Welding with standard GMAW power source with DC+ polarity. No pulsing needed. Backhand (drag) technique preferred with a work angle of appr. 80°. Ar + 15 – 25 % CO_2 as shielding gas offers the best weldability. 100 % CO_2 can be also used, but the voltage should be increased by 2 V. The gas flow should be 15 – 18 l/min. The heat input should not exceed 2.0 kJ/mm, the interpass temperature be limited to max. 150°C and the wire stick-out 15 – 20 mm. The scaling temperature is approx. 850°C in air. Post-weld heat treatment generally not needed. In special cases, solution annealing can be performed at 1050°C followed by water quenching.

Approvals

TÜV-D (5348.), DB (43.014.14), CWB, DNV GL, CE