

BÖHLER EAS 4 M-FD

Flux cored wire, high-alloyed, stainless

Classifications					
ø 1.2 mm / ø 1.6 mm					
EN ISO 17633-A	EN ISO 17633-B	AWS A5.22			
T 19 12 3 L R M21 (C1) 3	TS316L-F M21 (C1) 0	E316LT0-4 / E316LT0-1			
ø 0.9 mm					
EN ISO 17633-A	EN ISO 17633-B	AWS A5.22			
T 19 12 3 L P M21 (C1) 1	TS316L-F M21 (C1) 1	E316LT1-4/-1			

Characteristics and typical fields of application

Rutile flux cored welding wire of type T 19 12 3 L R / E316LT0 for GMAW of stainless steels like 1.4435 / 316L. This product achieves high productivity and is easy to operate providing excellent operating characteristics, self releasing slag, almost no spatter formation and temper discoloration, smooth weld finish and safe penetration. Increased travel speeds as well as little demand for cleaning and pickling provide considerable savings in time and money. Suitable for service temperatures of -120°C to +400°C. Resists intergranular corrosion up to +400°C.

BÖHLER EAS 4 M-FD Ø 0.9 mm is well suitable for welding of sheet metal from 1.5 to 3 mm (out of position > 5 mm) and Ø 1.2 mm can be used for wall thicknesses from 3 mm and up. Wire Ø 0.9 mm is designed for positional welding, wire Ø 1.2 mm and 1.6 mm are recommended mainly for downhand and horizontal welding positions, horizontal/vertical position as well as the slightly vertical-down position (1 o'clock).

Base materials

- 1.4401 X5CrNiMo17-12-2, 1.4404 X2CrNiMo17-12-2, 1.4435 X2CrNiMo18-14-3,
- 1.4436 X3CrNiMo17-13-3, 1.4571 X6CrNiMoTi17-12-2, 1.4580 X6CrNiMoNb17-12-2,
- 1.4583 X10CrNiMoNb18-12, 1.4409 GX2CrNiMo19-11-2

UNS S31603, S31653; AISI 316L, 316Ti, 316Cb

Typical analysis of all-weld metal (wt%)						
	С	Si	Mn	Cr	Ni	Мо
wt%	0.03	0.7	1.5	19.0	12.0	2.7

Mechanical properties of all-weld metal					
Condition	Yield strength R _{p2.0}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J	
	MPa	MPa	%	+20°C	-120°C
u	400 (≥ 320)	560 (≥ 510)	38 (≥ 30)	55	35 (≥ 32)
u untreated, as welded – (Ar + 18% CO ₂)					



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Operating data						
* * *		Polarity:	Shielding gases:	ø (mm)	Strom A	Spannung V
		DC (+)	M1 – M3; C1	0,9	100 – 160	21 – 30
				1,2	125 – 280	20 – 34
* * *			Redrying:	1,6	200 – 350	25 – 35
ø 0,9 mm	ø 1,2 mm		possible			
	ø 1,6 mm		150 °C / 24 h			

Welding with standard GMAW-facilities possible, slightly trailing torch position (angel appr. 80°), when using 100% CO₂ as shielding gas it is necessary to increase the voltage by 2 V; the gas flow should be 15-18 l/min.

Approvals

TÜV (5349.), DB (43.014.15), CWB (E316LT0-1(4)), GL (4571 (C1, M21)), LR (DX BF, 316L S), SEPROZ, CE, DNV