FOXcore F-316L-T1

Flux-cored wire, high-alloyed, austenitic stainless

Classifications

EN ISO 17633-B	AWS A5.22 / SFA-5.22
TS 316L-F C1/M21 1	E316LT1-1/4

Characteristics and typical fields of application

FOXcore F-316L-T1 is designed for welding austenitic stainless-steel type 17Cr 12Ni 2.5Mo or similar, mainly for pure CO2 shielding gas but it can be used also with mix gases Ar/CO2 (18-25%). This filler metal is also suitable for welding titanium and niobium stabilized steels such as ASTM 316Ti in case where the construction will be operating at temperatures below 400ºC.
FOXcore F-316L-T1 provides the excellent usability with stable arc, less spattering, good bead appearance, better slag removal, and it is designed for all-round welding and can be used in all positions without changing parameter settings.

Base materials

1.4401 X5CrNiMo17-12-2, 1.4404 X2CrNiMo17-12-2, 1.4409 GX2CrNiMo19-11-2, 1.4432 X2CrNiMo17-12-3,
1.4429 X2CrNiMoN17-12-3, 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	0.70	1.30	18.0	12.2	2.5

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
u	400 (≥320)	560 (≥485)	37 (≥30)	60

u untreated, as-welded – shielding gas M21 (Ar + 18% CO_2) / C1 (100% CO_2

Operating data

Polarity	DC +
Shielding gas (EN ISO 14175)	C1

Dimension mm
1.2

Welding with standard GMAW power source. No pulsing needed. Backhand (drag) technique preferred with a work angle of approximately 80º. 100% CO2 as shielding gas offers the best weldability. Suitable gas flow rate is 15 – 20 l/min. Suggested heat input is max. 1.5 kJ/mm, interpass temperature max. 150ºC and wire stick-out 15 – 20 mm.

Approvals

ABS

All information provided is based upon careful investigation and intensive research.
However, we do not assume any liability for correctness and information is subject to change without notice.