

Classifications

EN ISO 17633-B	AWS A5.22 / SFA-5.22
TS 308L-F C1/M21 1	E308LT1-1/4

Characteristics and typical fields of application

FOXcore F-308L-T1 is designed for welding austenitic stainless-steel type 19Cr 10Ni 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 321 and ASTM 347 in case where the construction will be operating at temperatures below 400°C. FOXcore F-308L-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

1.4301 X5CrNi18-10, 1.4306 X2CrNi19-11, 1.4307 X2CrNi18-9, 1.4311 X2CrNi18-9, 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

Typical analysis

	C	Si	Mn	Cr	Ni
wt.-%	0.02	0.70	1.30	19.2	10.2

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	390 (≥ 320)	570 (≥ 520)	39 (≥ 30)	60

u untreated, as-welded – shielding gas M21 (Ar + 18% CO₂) / C1 (100% CO₂)

Operating data

	Polarity	DC +	Dimension mm
	Shielding gas (EN ISO 14175)	C1 / M21	1.2

Welding with standard GMAW power source. No pulsing needed. Backhand (drag) technique preferred with a work angle of approximately 80°. 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. 150°C and wire stick-out 15 – 20 mm.

Approvals

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