

FOXCORE 308L-T1 C1 FOXCORE 316L-T1 C1 FOXCORE 309L-T1 C1

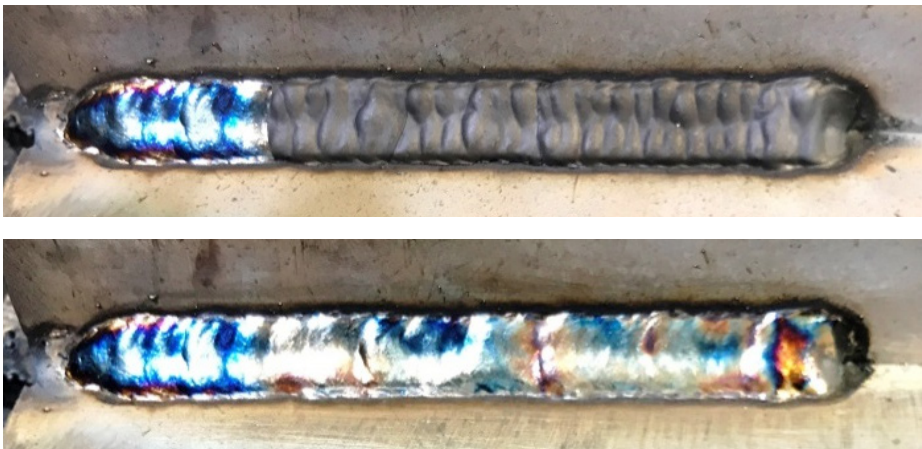
Flux-core wires optimized for welding with 100% CO₂ as shielding gas

The FOXcore 3XXL-T1 C1 series is optimized for welding on straight CO₂ to make the process run hotter for deep weld penetration and high-productivity. These austenitic rutile flux-core wires show very good slag detachability and almost no spatter formation. Due to the fast freezing rutile slag; the weldability is excellent also in the vertical-up position. The wide arc ensures even penetration and side-wall fusion to prevent lack of fusion. Typical applications are general fabrication of stainless steel and welding outdoors and in shipyards.

FOXcore 308L-T1 C1 was developed for welding non-molybdenum-alloyed austenitic stainless steels such as 1.4301, 1.4306 and 1.4307 / 304 and 304L with good corrosion resistance under moderately severe conditions, e.g. in oxidizing acids and cold or dilute reducing acids. Suitable for service temperatures from -196 °C to 350 °C.

FOXcore 316L-T1 C1 was developed for welding austenitic stainless steels such as 1.4404, 1.4432 and 1.4436 / 316L with high resistance to general, pitting and intergranular corrosion in chloride containing environments. Applicable in fairly severe service conditions, e.g. in dilute hot acids. Suitable for service temperatures from -120 °C to 400 °C.

FOXcore 309L-T1 C1 is primarily intended for surfacing (buffer layer) unalloyed or low-alloyed steels and for joining non-molybdenum-alloyed stainless steels to carbon steels. The corrosion resistance is superior to T 19 9 L / E308L fillers. When used for overlay welding on mild steel a corrosion resistance equivalent to that of 1.4301 / 304 is obtained already in the first layer. Suitable for service temperatures from -60 °C to 300 °C.



Visual appearance of FOXcore 309L-T1 C1 in vertical-up (PF / 3Fu) position before and after slag removal

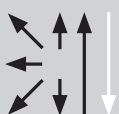
Classifications		
Product name	EN ISO 17633-A	AWS A5.22 / SFA-5.22
FOXcore 308L-T1 C1	T 19 9 L P C1 1	E308LT1-1
FOXcore 316L-T1 C1	T 19 12 3 L P C1 1	E316LT1-1
FOXcore 309L-T1 C1	T 23 12 L P C1 1	E309LT1-1

Article numbers		
Product name	15 kg plastic spool	5 kg plastic spool
FOXcore 308L-T1 C1	40319	53781
FOXcore 316L-T1 C1	38718	53788
FOXcore 309L-T1 C1	40320	53784

Typical analysis of all-weld metal, wt.-%						
Product name	C	Si	Mn	Cr	Ni	Mo
FOXcore 308L-T1 C1	0.03	0.6	1.3	19.9	10.6	-
FOXcore 316L-T1 C1	0.03	0.6	1.3	18.5	12.4	2.8
FOXcore 309L-T1 C1	0.03	0.6	1.3	23.0	12.4	-

Mechanical properties of all-weld metal – typical values (minimum values)					
Product name	Yield strength $R_{p0.2}$ MPa	Tensile strength R_m MPa	Elongation A_5 %	Impact toughness ISO-V J	
				20 °C	-60 °C to -196 °C
FOXcore 308L-T1 C1	390 (≥ 320)	530 (≥ 520)	41 (≥ 30)	63	40 (≥ 32) @ -196 °C
FOXcore 316L-T1 C1	420 (≥ 320)	545 (≥ 510)	38 (≥ 30)	60	37 (≥ 32) @ -120 °C
FOXcore 309L-T1 C1	395 (≥ 320)	535 (≥ 520)	36 (≥ 30)	57	47 (≥ 32) @ -60 °C

untreated, as-welded – shielding gas 100 % CO₂

Operating data					
	Ø mm	Wire feed m/min	Current A	Voltage V	Arc length mm
	1.2	6.0-15.0	150-280	24-32	~3

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 for welding outdoors is 18-25 l/min.
 Suggested heat input is max. 2.0 kJ/mm, interpass temperature max. 150 °C and wire stick-out 15-20 mm.
 Post-weld heat treatment generally not needed.

Approvals
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