FOXcore 347-T1

Flux-cored wire, high-alloyed, austenitic stainless, stabilized

Classifications

EN ISO 17633-A	EN ISO 17633-B	AWS A5.22 / SFA-5.22
T 19 9 Nb P M21 (C1) 1	TS 347L-F M21 (C1) 1	E347T1-4(1)

Characteristics and typical fields of application

Rutile flux-cored wire of T 19 9 Nb P / E347T1 type for welding of stainless steels such as 1.4546 / 347. Good resistance to general corrosion. The fast freezing slag offers excellent weldability and slag control in all positions. 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. The wide arc ensures even penetration to prevent lack of fusion. Stabilized with niobium and suitable for service temperatures from –120ºC to 400ºC. For flat and horizontal welding positions, FOXcore 347-T0 may be preferred.

Base materials

1.4301 X5CrNi18-10, 1.4306 X2CrNi19-11, 1.4311 X2CrNiN18-9, 1.4312 GX10CrNi18-8, 1.4541 X6CrNiTi18-10, 1.4546
X5CrNiNb18-10, 1.4550 X6CrNiNb18-10, 1.4552 GX5CrNiNb19-11
UNS S30400, S30403, S30453, S32100, S34700
AISI 347, 321,302, 304, 304L, 304LN

Typical analysis

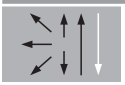
	C	Si	Mn	Cr	Ni	Nb	FN
wt.-%	0.03	0.7	1.4	19.0	10.4	0.35	5 – 13

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	–120°C
u	450 (≥ 350)	600 (≥ 550)	35 (≥ 30)	70	40(≥ 32)

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

Operating data



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

Welding with standard GMAW power source with DC+ polarity. No pulsing needed. Backhand (drag) technique preferred with a work angle of approximately 80º. Ar + 15 – 25% CO2 as shielding gas offers the best weldability. 100% CO2 can be also used, but the voltage should be increased by 2 V. Suitable gas flow rate is 15 – 18 l/min. The heat input should not exceed 2.0 kJ/mm, the interpass temperature be limited to max. 150ºC and the wire stick-out 15 – 20 mm. Post-weld heat treatment generally not needed.

Approvals

TÜV (10059), NAKS, CE