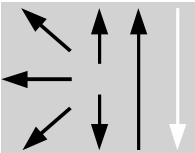


Classifications								
EN ISO 17633-A			EN ISO 17633-B			AWS A5.22 / SFA-5.22		
T 19 9 Nb P M21 (C1) 1			TS 347L-F M21 (C1) 1			E347T1-4(1)		
Characteristics and typical fields of application								
<p>Rutile flux-cored wire of T 19 9 Nb P / E347T1 type for welding of stainless steels such as 1.4546 / 347. The corrosion resistance corresponds to that of the base material 308H, i.e. 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 in time and money. The wide arc ensures even penetration and side-wall fusion to prevent lack of fusion. Stabilized with niobium and suitable for service temperatures from −120°C to 400°C. The scaling temperature is approximately 850°C in air. For flat and horizontal welding positions, BÖHLER SAS 2-FD (FOXcore 347-T0) may be preferred.</p>								
Base materials								
1.4301 X5CrNi18-10, 1.4306 X2CrNi19-11, 1.4311 X2CrNi18-9, 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 of all-weld metal							Ferrite WRC-92	
	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 (minimum values)								
Condition	Yield strength R _{p0.2}		Tensile strength R _m		Elongation A (L ₀ =5d ₀)		Impact work ISO-V KV J	
	MPa		MPa		%		20°C	
u	420 (≥ 350)		590 (≥ 550)		35 (≥ 30)		70	
u							40 (≥ 32)	
u untreated, as-welded – shielding gas Ar + 18% CO ₂								
Operating data								
	Ø	Wire feed		Arc length		Current	Voltage	
	mm	m/min		mm		A	V	
	1.2	6.0 – 13.0		~ 3		150 – 230	22 – 29	
	1.6	4.5 – 9.5		~ 3		200 – 360	23 – 28	
<p>Welding with standard GMAW power source with DC+ polarity. No pulsing needed. Backhand (drag) technique preferred with a work angle of approximately 80°. 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 for welding outdoors is 18 – 25 l/min. The heat input should not exceed 2.0 kJ/mm, the interpass temperature be limited to max. 150°C and the wire stick-out 15 – 20 mm. Post-weld heat treatment generally not needed.</p>								
Approvals								
TÜV (10059), NAKS, CE								