Thermanit TG 347

Flux cored wire, high-alloyed, rutile

Classifications

EN ISO 17633-A	EN ISO 17633-B	AWS A5.22	Mat. No.
T 19 9 Nb R M21 3 T 19 9 Nb R C1 3	TS347L-FB0	E347T0-4 E347T0-1	1.4551

Characteristics and typical fields of application

Thermanit TG 347 is an austenitic CrNi-Nb stabilized flux cored wire with rutile slag characteristic. This flux cored wire finds application in all branches of industry where matching steels as well as ferrite 13 % chromium steels are in process. Typical fields of application are the chemical apparatus engineering and tank construction, the textile and cellulose industry, dye-works enterprises etc. Simple handling of the flux cored wire leads to a high productivity with finely rippled bead appearance, with good sidewall wetting and evenly secure penetration.

The weld metal is cold tough down to –120 °C (–184 °F) and resistant to intercrystalline corrosion and wet corrosion up to 400 °C (752 °F).

Base materials

1.4550 – X6CrNiNb18-10	1.4541 – X6CrNiTi18-10
1.4552 – GX5CrNiNb19-11	1.4301 – X5CrNi18-10
1.4312 – GX10CrNi18-8	1.4546 – X5CrNiNb18-10
1.4311 – X2CrNiN18-10	1.4306 – X2CrNi19-11

AISI 347, 321, 302, 304, 304L, 304LN, ASTM A295 Gr. CF 8 C,
A157 Gr. C 9, A320 Gr. BBC oder D

Typical analysis of all-weld metal (wt.-%)

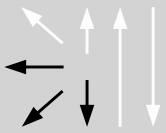
	C	Si	Mn	Cr	Ni	Nb	Gas
wt-%	0.03	0.6	1.4	19.0	10.4	+	M21

Structure: Austenite with part ferrite

Mechanical properties of all-weld metal

Heat-treatment	Yield strength $R_{p0.2}$	Yield strength $R_{p1.0}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact work ISO-V KV J	
	MPa	MPa	MPa	%	+20 °C	–120 °C
aw	380	430	560	30	47	32

Operating data



Polarity:	Shielding gas:	ø (mm)	Spool	Amps A	Voltage V
DC (+)	(EN ISO 14175) M21, C1 Consumption: 15 – 18 l/min	1.2	B300	125 – 280	20 – 34

Approvals

TÜV (10693), CE