

Thermanit ATS 4

Solid wire, high-alloyed, high temperature resistant

Classifications			
EN ISO 14343-A	EN ISO 14343-B	AWS A5.9	Mat. No.
G 19 9 H	SS19-10H	ER19-10 H	1.4948

Characteristics and typical fields of application

High temperature resistant up to 700 °C (1292 °F); resistant to scaling up to 800 °C (1472 °F). For surfacing and joining applications on matching / similar high temperature resistant steels / cast steel grades.

Base materials

1.4550 – X6CrNiNb18-10 1.4948 – X6CrNi18-1 1.4878 – X12CrNiTi18-9 AISI 304H; 321H; 347H

Typical analysis of solid wire (wt%)					
	С	Si	Mn	Cr	Ni
wt-%	0.05	0.3	1.8	18.8	9.3

Structure: Austenite with approx. 5 % 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
aw	350	370	550	35	70

Creep rupture properties: In the range of matching high temperature resistant parent metals

Operating data				
Polarity:	Shielding gas:	ø (mm)	Spool:	
DC (+)	(EN ISO 14175) M12	0.8	B300	
		1.0	B300	
		1.2	B300	
Welding instruction				

Welding instruction				
Materials	Preheating	Postweld heat treatment		
Matching / similar steels/ cast steel grades	Up to 25 mm wall thickness: none. Over 25 mm wallthickness: max. 200 °C (392 °F) advisable	Up to 25 mm wall thickness: none. Over 25 mm wall thickness: to avoid stress corrosion cracking 1050 °C (1922 °F) / air		

Approvals

TÜV (06522), CE