Thermanit 19/10 H

Solid wire, high-alloyed, austenitic stainless, creep resistant

Classifications

EN ISO 14343-A	AWS A5.9 / SFA-5.9
G 19 9 H	ER19-10H

Characteristics and typical fields of application

Solid wire of G 19 9 H / ER19-10H type for joining and surfacing applications on matching and similar creep resistant steel and cast steel grades. Creep resistant up to 700ºC. Controlled microstructure with approximately 5% ferrite.

Base materials

1.4948 - X6CrNi18-10; 1.4878 - X8CrNiTi18-10; 1.4940 - X7CrNiTi18-10; 1.4912 - X7CrNiNb18-10
AISI 304H, 321H, 347H

Typical analysis

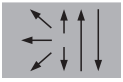
	C	Si	Mn	Cr	Ni
wt.-%	0.05	0.3	1.8	18.8	9.3

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
u	390 (≥ 350)	590 (≥ 550)	35 (≥ 30)	70 (≥ 47)

u untreated, as-welded – shielding gas Ar + 2.5% CO_2

Operating data



Polarity	DC+
Shielding gas (EN ISO 14175)	M11 M12 M13

Dimension mm
0.8
1.0
1.2

Up to 25 mm wall thickness no preheating or post weld heat treatment. Over 25 mm wall thickness preheating to max. 200ºC and stress relieving treatment at 1050ºC followed by air cooling. Suggested heat input is max. 2.0 kJ/mm and interpass temperature max. 150ºC. Creep rupture properties according to matching high temperature steels / alloys.
Shielding gas: Ar + 2 – 3% CO_2

Approvals

TÜV (19689), CE