Thermanit 439 Ti

Solid wire, high-alloyed, stainless

Classifications		
EN ISO 14343-A	AWS A5.9	Mat. No.
G Z 18 Ti L	ER439(mod.)	≈1.4502

Characteristics and typical fields of application

Stainless. Scaling resistant up to 900 °C (1652 °F). For joining and surfacing of similar and matching steels. Exhaust systems.

Base materials

1.4016 – X6Cr17 – AISI 430
1.4502 – X8CrTi18
1.4510 – X3CrTi17
AISI 439

Typical analysis of solid wire (wt.-%)

	C	Si	Mn	Cr	Ti
wt-%	≤ 0.03	0.8	0.8	18.0	≥ 12xC

Structure: Ferrite

Mechanical properties of all-weld metal

Heattreatment	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Hardness
	MPa	MPa	%	HB30
aw				≈150
800 °C / 1 h (1472 °F)	280	430	20	≈130

Operating data

Polarity:	Shielding gas:	ø (mm)	Spool:
DC (+)	(EN ISO 14175) M12, M13	1.0	B300

Welding instruction

Materials	Preheating	Postweld heat treatment
Matching ferritic steels	200 – 300 °C (392 – 572 °F)	Air cooling. Stress releaving heat treatment at 800 °C (1,472 °F), Air cooling is recommended when multi layer welding.