

Classifications

EN ISO 14343-A	EN ISO 14343-B	AWS A5.9
W 22 12 H	SS(309)	ER309 (mod.)

Characteristics and typical fields of application

GTAW rod for analogous, heat resisting rolled, forged and cast steels as well as for heat resisting, ferritic CrSiAl steels, e.g. in annealing shops, hardening shops, steam boiler construction, the crude oil industry and the ceramics industry. Austenitic deposited with a ferrite content of approx. 8 %. Preferably used for applications involving the attack of oxidizing gases. The final layer of joint welds in CrSiAl steels exposed to sulphurous gases must be deposited by means of FOX FA or FA-IG. Scaling resistance up to +1000 °C.

Base materials

Austenitic
1.4828 X15CrNiSi20-12, 1.4826 GX40CrNiSi22-10, 1.4833 X12CrNi23-13
Ferritic-perlitic
1.4713 X10CrAlSi7, 1.4724 X10CrAlSi13, 1.4742 X10CrAlSi18, 1.4710 GX30CrSi7, 1.4740 GX40CrSi17
AISI 305, ASTM A297HF

Typical analysis of the TIG rods (wt.-%)

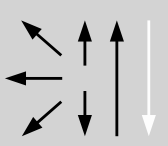
	C	Si	Mn	Cr	Ni
wt-%	0.1	1.1	1.6	22.5	11.5

Mechanical properties of all-weld metal

Condition	Yield strength R _e	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
u	500 (≥ 350)	630 (≥ 550)	32 (≥ 25)	115

u untreated, as welded

Operating data

	Polarity:	Shielding gas:	Rod marking:	∅ (mm)
	DC (-)	100 % Argon	front: ✦ W 22 12 H back: 1.4829	1.6 2.0 2.4

Preheating and interpass temperatures for ferritic steels 200 – 300 °C.

Approvals

TÜV (20), SEPROZ