

Classifications

EN ISO 3581-A	EN ISO 3581-B	AWS A5.4
E 19 9 H R 4 2	ES308H-16	E308H-16

Characteristics and typical fields of application

Rutile basic core wire alloyed electrode for the use of high temperature CrNi austenitic steel for service temperatures up to +700 °C. Specially designed for the base metal AISI 304H (W. no. 1.4948). Controlled ferrite content of 3-8 FN. The deposit is insusceptible to embrittlement and scaling.

Excellent weld ability in all position except vertical down.

Base materials

Similar alloyed creep resistant steels
1.4948 X6CrNi18-11, 1.4878 X12CrNiTi18-9
AISI 304, 304H, 321H, 347H

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

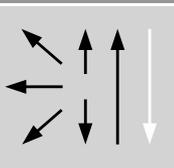
	C	Si	Mn	Cr	Ni		FN
wt.-%	0.05	0.6	0.8	19.8	10.2		3-8

Mechanical properties of all-weld metal

Condition	Yield strength R _{p0,2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
u	420 (≥ 350)	580 (≥ 550)	40 (≥ 30)	75 (≥ 32)

u untreated, as welded

Operating data

	Polarity: DC (+) AC	Redrying if necessary: 120 – 200 °C, min. 2 h	Electrode identification: FOX E 308 H-16 E 19 9 H R	ø (mm)	L mm	Amps A
				2.5	300	45 – 75
				3.2	350	70 – 110
				4.0	350	110 – 145

Preheating is not required; only in case of wall thickness above 25 mm preheat up to 150 °C. Interpass temperature should not exceed 200 °C.

Approvals

TÜV (11178.), SEPROZ, CE