

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 19 9 H R 4 2	E308H-16

Characteristics and typical fields of application

Rutile-basic coated electrode of E 19 9 H R / E308H-16 type for welding of creep resistant CrNi-alloyed austenitic stainless steels such as 1.4948 / 304H. Controlled ferrite content of 3 – 8 FN. The deposit is resistant to embrittlement and scaling. Service temperatures up to 700°C. Excellent weldability in all positions except vertical down.

Base materials

1.4301 X5CrNi18-10, 1.4541 X6CrNiTi18-10, 1.4550 X6CrNiNb18-10, 1.4878 X8CrNiTi18-10, 1.4948 X7CrNi18-9
UNS S30400, S30409, S32100, S34700
AISI 304, 304H, 321, 321H, 347, 347H

Typical analysis


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

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	420 (≥ 350)	580 (≥ 550)	40 (≥ 30)	70 (≥ 32)

u untreated, as-welded

Operating data

	Polarity	DC+ / AC	Dimension mm	Current A
	Electrode identification	FOX E 308 H-16 E 19 9 H R	2.5 × 300	45 – 75
			3.2 × 350	70 – 110
			4.0 × 350	110 – 145

Preheating normally not necessary. Material with a thickness exceeding 25 mm is preferably preheated up to 150°C.

Interpass temperature should not exceed 200°C.

Re-drying at 120 – 200°C for min. 2 h if necessary.

Approvals

TÜV (11178), CE