

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 25 20 R 3 2	E310-16

Characteristics and typical fields of application

Rutile coated electrode of E 25 20 R / E310-16 type for welding heat resistant rolled steels e.g. in annealing plants, hardening plants, steam boiler construction, the crude oil industry and the ceramic industry. Heat resistant CrSiAl-steels exposed to sulfurous gases should be weld with a final layer of BÖHLER FOX FA after joining. For thick-walled components, the basic coated BÖHLER FOX FFB is recommended. Avoid the service temperature range between 650°C and 900°C due to the risk of embrittlement. Scaling resistant up to 1200°C.

Base materials

1.4586 X5NiCrMoCuNb22-18, 1.4710 GX30CrSi6, 1.4713 X10CrAl7, 1.4724 X10CrAl13, 1.4740 GX40CrSi17, 1.4742 X10CrAl18, 1.4762 X10CrAl 25, 1.4826 GX40CrNiSi22-9, 1.4840 GX15CrNi25-20, 1.4841 X15CrNiSi25-20, 1.4845 X12CrNi25-21, 1.4828 X15CrNiSi20-12, 1.4837 GX40CrNiSi25-12, 1.4840 GX15CrNi25-20, 1.4846 GX40CrNi25-21
UNS S31000, S31400, S44600
AISI 305, 310, 314, 446

Typical analysis


	C	Si	Mn	Cr	Ni
wt.-%	0.12	0.5	2.2	26.0	21.0

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	410 (≥ 350)	580 (≥ 550)	35 (≥ 30)	85 (≥ 47)

u untreated, as-welded

Operating data

	Polarity	DC+ / AC	Dimension mm	Current A
	Electrode identification	FOX FFB-A 310-16 E 25 20 R	2.0 × 300	40 – 60
	Redrying	-	2.5 × 300	50 – 80
		-	3.2 × 350	80 – 110
		-	4.0 × 350	110 – 140

Preheating and interpass temperature depending on the base material and material thickness.

Approvals

CE