

Classification

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 25 20 B 2 2	E310-15 (mod.)

Characteristics and typical fields of application

Basic electrode, core wire alloyed for analogous, heat resisting rolled, forged and cast steels e.g. in annealing plants, hardening plants, steam boiler construction, the crude oil industry and the ceramics industry. Joint welds in heat resisting CrSiAl steels exposed to sulphurous gases should be given a final layer deposited by means of FOX FA. Scaling resistant up to +1200 °C. Cryogenic resistance down to -196 °C. The service temperature range between +650 and +900 °C should be avoided owing to the risk of embrittlement.

Base materials

Austenitic

1.4841 X15CrNiSi25-20, 1.4845 X12CrNi25-21, 1.4828 X15CrNiSi20-12, 1.4840 G-X15CrNi25-20, 1.4846 G-X40CrNi25-21, 1.4826 G-X40CrNiSi22-9

Ferritic-perlitic

1.4713 X10CrAl7, 1.4724 X10CrAl13, 1.4742 X10CrAl18, 1.4762 X10CrAl 25, 1.4710 G-X30CrSi6, 1.4740 G-X40CrSi17

AISI 305, 310, 314, ASTM A297 HF, A297 HJ

Typical analysis of all-weld metal

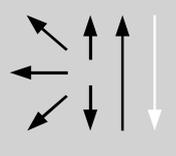
	C	Si	Mn	Cr	Ni
wt.-%	0.12	0.60	3.20	25.00	20.50

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 work ISO-V KV J	
	MPa	MPa	%	+20 °C	-196 °C
u	420 (≥ 350)	600 (≥ 550)	36 (≥ 30)	100	≥ 32

u untreated, as welded

Operating data

	Polarity: DC (+)	Electrode identification: FOX FFB E 25 20 B	ø mm	L mm	Amps A
			2.5	300	50 – 75
			3.2	350	80 – 110
			4.0	350	110 – 140
			5.0	450	140 – 180

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

Approvals

TÜV (00143.), Statoil, CE