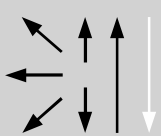


Classification						
EN ISO 3581-A		EN ISO 3581-B		AWS A5.4		
E 22 12 R 3 2		ES309-16		E309-17		
Characteristics and typical fields of application						
Rutile electrode, core wire alloyed for welding analogous, heat resistant rolled, forged and cast steels as well as heat resistant ferritic CrSiAl steels, e.g. in annealing plants, hardening plants, steam boiler construction, the crude oil industry and the ceramics industry. For weld joints in CrSiAl steels exposed to sulphurous gases, the final layer has deposited by means of FOX FA. Scaling resistant up to +1000 °C. Smooth beads and easy slag removal.						
Base materials						
Austenitic 1.4828 X15CrNiSi20-12, 1.4826 GX40CrNiSi22-9, 1.4833 X7 CrNi23 14 Ferritic-perlitic 1.4713 X10CrAl7, 1.4724 X10CrAl13, 1.4742 X10CrAl18, 1.4710 G-X30CrSi6, 1.4740 G-X40CrSi17 AISI 305, ASTM A297HF						
Typical analysis of all-weld metal						
	C	Si	Mn	Cr	Ni	
wt.-%	0.1	0.8	0.9	22.5	12.5	
Mechanical properties of all-weld metal – typical values (min. values)						
Condition	Yield strength R <sub>p0,2</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact work ISO-V KV J		
	MPa	MPa	%	+20 °C		
u	460 (≥ 350)	610 (≥ 550)	37 (≥ 25)	60		
u untreated, as welded						
Operating data						
	Polarity: DC ( + ) AC	Redrying if necessary: 120 – 200 °C, min. 2 h	Electrode identification: FOX FF-A E 22 12 R	ø mm	L mm	Amps A
				2.5	350	50 – 80
				3.2	350	80 – 110
				4.0	350	110 – 140
Preheating and interpass temperatures for ferritic steels 200 – 300 °C.						
Approvals						
TÜV (9091.), ABS (309-17), CE						