

## Classifications

EN ISO 3581-A	ISO 3581
E Z19 14 Si B 2 2	E 17.12 SiB

## Characteristics and typical fields of application

Basic electrode, core wire alloyed, for joint welding of the special steel X2CrNiSi1815, 1.4361 (BÖHLER A 610), which resists the attack of highly concentrated nitric acid as well as of nitric acid which additionally contains strong de-oxidants. Also recommended for weld cladding of analogous type steels. Suitable for use at service temperatures up to +350 °C.

## Base materials

1.4361 X1CrNiSi18-15-4, UNS S30600

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

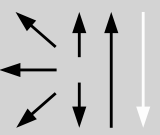
	C	Si	Mn	Cr	Ni
wt.-%	<0.02	4.4	1.1	19.0	15.2

## Mechanical properties of all-weld metal

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	-50 °C
u	<b>500</b> (≥ 390)	<b>720</b> (≥ 660)	<b>35</b> (≥ 30)	<b>75</b>	≥ 32

u untreated, as welded

## Operating data

	Polarity:	Redrying if necessary:	Electrode identification:	ø (mm)	L mm	Amps A
	DC ( + )	300 – 350 °C, min. 2 h	FOX EAS 2 Si E Z 19 14 Si B	2.5 3.2	300 350	45 – 75 70 – 110

Electrodes have to be welded with short arc. Amperage has to be adapted to wall thickness respectively welding position, to avoid overheated weld metal. For welding position PA/1G, 1F stringer beads are recommended.

Heat input should be restricted to a necessary minimum, additional cooling is recommend to improve corrosion results. Reduce heat input in position PF/3G to avoid negative influence of corrosion behaviour of root pass and heat affected zone, with limitation of weaving width of max. 2 x core wire diameter. Interpass temperature should not exceed +150 °C.

Grind out the end craters and grind previous passes. The TIG process, using EASN 2 Si-IG should be given preference for root welding. The weld metal does not require postweld heat treatment. In exceptional cases quench from 1100 °C in water.

## Approvals

TÜV (01482.), SEPROZ, CE