

**Classifications**

<b>EN ISO 3581-A</b>	<b>AWS A5.4 / SFA-5.4</b>
E 25 20 R 3 2	E310-17

**Characteristics and typical fields of application**

Rutile coated fully austenitic electrode of E 25 20 R / E310-17 type designed for welding of high temperature stainless steel such as 1.4845 / 310S and similar grades. Primary intended for constructions running at high temperatures. Wet corrosion properties are moderate. Scaling temperature approximately 1150°C in air.

**Base materials**

1.4841 X15CrNiSi25-21, 1.4845 X8CrNi25-21, 1.4846 X40CrNi25-21  
UNS S31000, S31400  
AISI 310, 310S, 314

**Typical analysis**

	C	Si	Mn	Cr	Ni	FN
wt.-%	0.11	0.7	2.0	26.0	21.4	0

**Mechanical properties of all-weld metal - typical values (min. values)**

Condition	Yield strength	Tensile strength	Elongation A	Impact energy ISO-V KV J		Hardness
	R <sub>p0.2</sub>	R <sub>m</sub>	(L <sub>0</sub> =5d <sub>0</sub> )	20°C	-196°C	
	MPa	MPa	%			HB
u	420 (≥ 350)	560 (≥ 550)	25 (≥ 20)	65	45 (≥ 32)	170

u untreated, as-welded

**Operating data**

	Polarity	DC+ / AC	Dimension mm	Current A
	Electrode identification	310-17	2.5 × 300	45 – 80
			3.2 × 350	70 – 120
			4.0 × 350	100 – 150

To minimize the risk of hot cracking when welding fully austenitic steels, the heat input and interpass temperature must be kept low and there must be as little dilution as possible from the parent metal.

Suggested heat input is max. 1.0 kJ/mm

Interpass temperature max. 100°C.

Preheating and post-weld heat-treatment not necessary.

Metal recovery approximately 115%.

Redrying needed: 350°C, min. 2 h.

**Approvals**

CE