

# 310

For welding steels such as Outokumpu	EN	ASTM	BS	NF	SS
4845	1.4845	310S	310S16	Z8 CN 25-20	2361

## Standard designations

EN ISO 14343 W 25 20  
AWS A5.9 ER310

## Characteristics and welding directions

AVESTA 310 is designed for welding high temperature steels such as ASTM 310S and similar.

AVESTA 310 gives a fully austenitic type 26 Cr 21 Ni weld metal and is therefore somewhat more sensitive to hot cracking than 316 type steels. Welding should therefore be performed minimising the heat input, interpass temperature and dilution with parent metal.

## Welding data

Diameter, mm	Current, A	Voltage, V
1.20	60 – 80	9 – 11
1.60	70 – 100	10 – 12
2.00	100 – 130	14 – 16
2.40	120 – 150	16 – 18
3.20	160 – 200	17 – 19

## Shielding gas

Ar (99.95%).  
Gas flow rate 4 – 8 l/min.

## Chemical composition, wire (typical values, %)

C	Si	Mn	Cr	Ni
0.12	0.35	1.6	25.5	21.0

Ferrite 0 FN

## Mechanical properties

	Typical values (IIW)	Min. values EN ISO 14343
Yield strength $R_{p0,2}$	420 N/mm <sup>2</sup>	350 N/mm <sup>2</sup>
Tensile strength $R_m$	610 N/mm <sup>2</sup>	550 N/mm <sup>2</sup>
Elongation $A_5$	33 %	20 %

**Interpass temperature:** Max. 100°C.

**Heat input:** Max. 1.0 kJ/mm.

**Heat treatment:** Generally none.

**Structure:** Fully austenitic.

**Scaling temperature:** Approx. 1150°C (air).

**Corrosion resistance:** Initially intended for constructions running at high temperatures. Wet corrosion properties are moderate.

## Approvals

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