

Avesta 904L

Stick electrode

Classifications

high-alloyed

EN ISO 3581-A:

AWS A5.4:

E 20 25 5 Cu N L R

E385-17

Characteristics and field of use

Avesta 904L is a high-alloyed fully austenitic Cr-Ni-Mo-Cu electrode designed for welding 1.4539/ASTM 904L type steels. It can also be used for welding 1.4404/ASTM 316 components where a ferrite free weld is required, e.g. in cryogenic or non-magnetic applications. The weld metal has a very good impact toughness at low temperatures. To minimise the risk of hot cracking when welding fully austenitic steels, heat input and interpass temperature must be low and there must be as little dilution as possible from the parent metal.

Base materials

For welding steels such as					
Outokumpu	EN	ASTM	BS	NF	SS
904L	1.4539	904L	904S13	Z2 NCDU 25-20	2562

Also for welding similar steels of the 20-25 CrNiMoCu-type.

Typical analysis of all-weld metal (Wt-%)

C	Si	Mn	Cr	Ni	Mo	Cu
0.02	0.7	1.2	20.5	25.0	4.5	1.5

Mechanical properties of all-weld metal

Heat Treatment	Yield strength 0.2%	Tensile strength	Elongation ($L_0=5d_0$)	Impact values in J CVN		
	MPa	MPa	%	+20°C:	-40°C:	-196°C:
untreated	400	600	34	70	60	50

Operating data

Polarity = + / ~

Dimensions (mm)	Amperage A
2.5	35-75
3.25	55-110
4.0	100-150
5.0	140-190