

Stainless steel electrode

Classification

AWS A5.4 : E316L-16
EN 1600 : E 19 12 3 L R 12

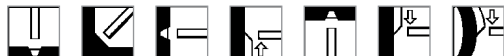
Temperature range

pressurized parts : -120...+350°C
oxidation resistance : n.a.

General description

Rutile-basic all position stainless steel electrode for 316L or equivalent steels
Specially for welding stainless steel pipes with diameters of over 50 mm with wall thickness of about 2 mm
Welding on site in the pulp and paper industry
Easy welding in all positions, easy weld pool control, full penetration, good slag release
Molybdenum level min. 2.7 %

Welding positions



ISO/ASME PA/1G PB/2F PC/2G PF/3Gup PE/4G PG/3Gdown PG/5Gdown

Current type

AC / DC + / -

Chemical composition (w%), typical, all weld metal

C	Mn	Si	Cr	Ni	Mo	FN
0.02	0.7	0.85	18.1	11.5	2.85	04-10

Mechanical properties, all weld metal

	Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J) -20°C
Required: AWS A5.4		not required	min. 490	min. 30	not required
EN 1600		min. 320	min. 510	min. 25	not required
Typical values	AW	450	580	39	60

Packaging and available sizes

	Diameter (mm)	2.0	2.5
	Length (mm)	250	250
Unit: Box	Pieces / unit	215	150
	Net weight/unit (kg)	1.9	2.0

Identification

Imprint: 316L-16

Tip Color: pink

Arosta® 316LP: rev. EN 22

Materials to be welded

Steel grades	EN 10088-1/-2	EN 102 13-4	W.Nr.	ASTM/ACI A240/A312/A351	UNS
Extra low carbon (C <0.03%)					
	X2 CrNiMo 17-12-2		1.4404	(TP)316L CF-3M	S31603 J92800
	X2 CrNiMo 18-14-3		1.4435	(TP)316L	S31603
	X2 CrNiMoN 17-11-2		1.4406	(TP)316LN	S31653
	X2 CrNiMoN 17-13-3		1.4429		
Medium carbon (C >0.03%)					
	X4 CrNiMo 17-12-2		1.4401	(TP)316	S31600
	X4 CrNiMo 17-13-3		1.4436		
		GX5 CrNiMo 19-11	1.4408	CF 8M	J92900
Ti-, Nb stabilized					
	X6 CrNiMoTi 17-12-2		1.4571	316Ti	S31635
	X6 CrNiMoNb 17-12-2		1.4580	316Cb	S31640
	X6 CrNiNb 18-10		1.4550	(TP)347	S34700
		GX5 CrNiNb 19-10	1.4552	CF-8C	J92710

Calculation data

Sizes Diam. x length (mm)	Current range (A)	Current type	Arc time - per electrode at max. current - (s)*	Energy E(kJ)	Dep.rate H(kg/h)	Weight/ 1000 pcs. (kg)	Electrodes/ kg weldmetal B	kg Electrodes/ kg weldmetal 1/N
2.0 x 250	30 - 60	DC+						
2.5 x 250	30 - 70	DC+						

* stub end 35 mm