

## Stainless steel electrode

### Classification

AWS A5.4 : E308L-17  
EN 1600 : E 19 9 L R 12

### Temperature range

pressurized parts : -196...+350°C  
oxidation resistance : to 800°C

### General description

A rutile-basic all position stainless steel electrode for 304L or equivalent steels

Mirror like bead appearance

Self releasing slag

Excellent side wall wetting, no undercut

High resistance to porosity

Weldable on AC and DC

Also available in vacuum sealed Sahara ReadyPack® (SRP)

### Welding positions



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

### Current type

AC / DC + / -

### Approvals

DNV	GL	LR	RMRS	TÜV
308LH10	4550	304L	304L	+

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

C	Mn	Si	Cr	Ni	FN
0.025	0.75	0.95	19.0	9.7	04-10

### Mechanical properties, all weld metal

	Condition	0.2% Proof strength (N/mm <sup>2</sup> )	Tensile strength (N/mm <sup>2</sup> )	Elongation (%)	Impact ISO-V(J)	
					+20°C	-20°C
Required: AWS A5.4 EN 1600		not required min. 320	min. 520 min. 510	min. 35 min. 30	not required not required	
Typical values	AW	440	600	45	75	60

### Packaging and available sizes

	Diameter (mm)	2.0	2.5	3.2	4.0	5.0
	Length (mm)	300	350	350	450	450
Unit: Box	Pieces / unit	200	125	135	85	55
	Net weight/unit (kg)	2.3	2.7	4.7	5.8	5.8
Unit: SRP	Pieces / unit	60	65	52	28	22
	Net weight/unit (kg)	0.6	1.4	1.8	2.0	2.4
Unit: Linc Can™	Pieces / unit		203	124	78	
	Net weight/unit (kg)		4.4	4.3	5.3	

### Identification

Imprint: 308L-17 / LIMAROSTA 304 L Tip Color: light blue

Limarosta® 304L: rev. EN 21

**Materials to be welded**

Steel grades	EN 10088-1/-2	EN 102 13-4	W.Nr.	ASTM/ACI A240/A312/A351	UNS
<b>Extra low carbon (C &lt;0.03%)</b>					
	X2 CrNi 19 11		1.4306	(TP)304L CF-3	S30403 J92500
	X2 CrNiN 18 10		1.4311	(TP)304LN 302,304	S30453 S30400
<b>Medium carbon (C &gt;0.03%)</b>					
	X4 CrNi 18 10		1.4301	(TP)304	S30409
		GX5 CrNi 19 10	1.4308	CF 8	J92600
<b>Ti-, Nb stabilized</b>					
	X6 CrNiTi 18 10		1.4541	(TP)321 (TP)321H	S32100 S32109
	X6 CrNiNb 18 10		1.4550	(TP)347 (TP)347H	S34700 S34709
		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 300	35 - 50	DC+	40	51	0.59	11.6	151	1.75
2.5 x 350	45 - 80	DC+	51	103	0.88	21.7	81	1.75
3.2 x 350	80 - 115	DC+	57	177	1.3	34.3	48	1.64
4.0 x 450	100 - 155	DC+	83	373	1.8	68.0	24	1.64
5.0 x 450	150 - 220	DC+	85	577	2.7	106.2	16	1.67

\* stub end 35 mm

**Welding parameters, optimum fill passes**

Welding positions Diameter (mm)	PA/1G	PB/2F	PC/2G	PF/3G up	PE/4G	PF/5G up
2.0		45A	45A	40A	40A	40A
2.5	70A	70A	70A	60A	60A	60A
3.2	100A	100A	100A	70A	70A	70A
4.0	140A	140A	140A			
5.0	180A	180A				

For root passes DC- is recommended.