

Stainless steel electrode

Classification

AWS A5.4-92 : E308L-15
EN 1600-97 : E 19 9 L B 22

Temperature Range

pressure parts: -196...+350°C
oxidation resistance: n.a.

General description

Basic coated electrode for low temperature applications
Low carbon content, good impact properties down to -196°C
Good weldability and smooth bead appearance
High resistance against oxidation up to 800°C
Welding on DC electrode + is recommended

Welding positions



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

Current type

DC electr. +

Approvals

TÜV
+

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

C	Mn	Si	Cr	Ni	FN
0.025	1.8	0.4	19.0	10.0	4-10

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	-196°C
Required: AWS A5.4-92		not required	min. 520	min. 35	not required	
EN 1600-97		min. 320	min. 510	min. 30	not required	
Typical values	AW	450	600	40	80	40

Packaging, available sizes and identification

	Diameter (mm)	2.5	3.2	4.0
Length (mm)		350	350	350
Unit: Box	Pieces / unit (nominal)	120	150	100
	Net weight/unit (kg)	2.4	4.8	4.8

Identification Imprint: 308L-15/Jungo 304L Tip colour: dark blue

Jungo® 304L: rev. EN 15

Jungo® 304L

SMAW

Materials to be welded

Steel grades	EN 10088-1/-2	EN 10213-4	W.Nr.	ASTM/ACI A240/A312/A351	UNS
Extra low carbon C <0.03%	X2 CrNi 19 11		1.4306	(TP)304L CF-3	S30403 J92500
	X6 CrNiNb 18 10		1.4311	(TP)304LN 302.304	S30453 S30400
Medium carbon C >0.03%	X4 CrNi 18 10		1.4301	(TP)304 CF 8	S30409 J92600
		GX5 CrNi 19 10	1.4308	(TP)321 (TP)321H	S32100 S32109
Ti-, Nb- stabilized	X6 CrNiTi 18 10		1.4541	(TP)347 (TP)347H	S34700 S34709
	X6 CrNiNb 18 10		1.4550	(TP)347H CF-8C	S34709 J92710
		GX5 CrNiNb 19 10	1.4552		

Calculation data

Sizes Diam. x length (mm)	Current range type (A)	Current	Arc time - per electrode at max. (s)*	Energy E(kJ)	Dep.rate H(kg/h)	Weight/ 1000 pcs. (kg)	Electrodes/ kg weldmetal B	kg Electrodes/ kg weldmetal 1/N
2.5 x 350	55 - 65	DC+	50	86	0.82	19.1	88	1.89
3.2 x 350	70 - 90	DC+	51	135	1.3	31.6	53	1.72
4.0 x 350	90 - 120	DC+	66	206	1.7	47.0	32	1.56

* stub end 35mm

Welding parameters, optimum fill passes

Welding positions Diameter (mm)	PA/1G Current (A)	PB/2F	PC/2G	PF/3G up	PE/4G	PF/5G up
2.5	60	60	60	60	60	60
3.2	95	90	90	75	75	75
4.0	125	110	125	100	100	100