

Jungo[®] 309L

CLASSIFICATION

AWS A5.4	E309L-15	A-Nr	8	Mat-Nr	1.4332
ISO 3581-A	E 23 12 L B 2 2	F-Nr	5		
		9606 FM	5		

TEMPERATURE RANGE

Pressurized parts : -196...+300°C
Oxidation resistance : n.a

GENERAL DESCRIPTION

A basic high CrNi alloyed buffer electrode
For welding stainless steel to mild steel and root passes in clad steel
Applicable for root passes in N alloyed AISI 304LN steels
Outstanding mechanical properties
High resistance to embrittlement
Weldable on AC and DC+ polarity

WELDING POSITIONS (ISO/ASME)



CURRENT TYPE

AC/DC +

CHEMICAL COMPOSITION (W%), TYPICAL, ALL WELD METAL

C	Mn	Si	Cr	Ni	FN (acc.WRC 1992)
0.025	1.5	0.4	23.0	13.0	10-20

MECHANICAL PROPERTIES, TYPICAL, ALL WELD METAL

Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Impact ISO-V(J) -196°C
Required: AWS A5.4 ISO 3581-A Typical values	not required min. 320 470	min. 520 min. 510 570	min. 30 min. 25 40	40
AW				

PACKAGING AND AVAILABLE SIZES

	Diameter (mm)	2.5	4.0	5.0
	Length (mm)	350	350	350
Carton + PE foil	Pieces / unit	117	97	60
	Net weight/unit (kg)	2.4	4.8	4.8

Identification Imprint: 309L-15 / JUNGO 309 L

Tip Color:

Jungo 309L rev. C-EN08-25/01/17

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EXAMPLES OF MATERIALS TO BE WELDED

Steel grades	EN 10088-1/-2	Mat. Nr	ASTM/ACI A240/A312/A351	UNS
Corrosion resistant cladsteels				
	X2CrNiN18-10	1.4311	(TP)304LN	S30453
	X2CrNi19-11	1.4306	(TP)304L	S30403
			CF-3	J92500
	X4CrNi18-10	1.4301	(TP)304	S30400

Dissimilar metals (mild and low alloy steel to CrNi or CrNiMo stainless steel)
 Build-up welding on mild and low alloy steel
 Buffer layer CrNi-cladsteel

CALCULATION DATA

Sizes Diam. x length [mm]	Current range [A]	Current type	Arc time	Energy	Dep. rate	Weight/ 1000 pcs [kg]	Electrodes/ kg weldmetal	kg electrodes/ kg weldmetal
			- per electrode at max. current - [S]*	E[kJ]	H[kg/h]		B	1/N
2.5 x 350	40-75	DC+	50	88	0.93	21.0	77	1.61
4.0 x 350	80-150	DC+	64	241	1.8	48.3	31	1.49

*Stub end 35mm

WELDING PARAMETERS, OPTIMUM FILL PASSES

Diameter [mm]	Welding positions					
	PA/1G	PB/2F	PC/2G	PF/3Gup	PE/4G	PH/5Gup
2.5	70A	70A	70A	60A80A	60A	60A
4.0	140A	140A	140A			