

PRIMALLOY® JS-309/309L

TYPICAL APPLICATIONS

- Designed for the welding of 22%Cr-12%Ni base metal and similar alloy composition stainless steels such as ASTM 309 309S 304 305
- Designed for joining stainless steels to mild or low alloy steels
- Designed for overlay welding on mild or low alloy steels
- Petrol Chemical Industry
- Power Generation Construction
- Shipbuilding & Offshore

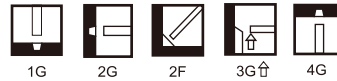
TOP FEATURES

- Rutile-Basic stainless steel electrode
 - Weld on AC or DCEP polarity
 - Excellent weldability in all position welding except vertical down
 - Flux coating provides smooth arc transfer and easy slag removal
- Designed with low carbon levels to help eliminate carbide precipitation in high temperature service

CONFORMANCE

- AWS A5.4/A5.4M E309-16
- AWS A5.4/A5.4M E309L-16

WELDING POSITIONS



APPROVAL

- PRIMALLOY® JS-309L: ABS

DIAMETERS / PACKAGING

Diameter x Length(mm x mm)	Weight /Inner box (KG)	Weight /Outer Carton (KG)
2.5 x 300	2	20
3.2 x 350	5	20
4.0 x 350	5	20
5.0 x 350	5	20

MECHANICAL PROPERTIES

Electrode		Yield Strength (MPa)	Elongation (%)	Ferrite Number (FN)
PRIMALLOY® JS-309	AWS Requirement	≥550	≥30	--
	Typical Value	600	37	13
PRIMALLOY® JS-309L	AWS Requirement	≥520	≥30	--
	Typical Value	600	37	13

CHEMICAL COMPOSITION

		C%	Si%	Mn%	P%	S%	Cr%	Mo%	Ni%	Cu%
PRIMALLOY® JS-309	AWS requirements	≤0.15	≤1.0	0.5-2.5	≤0.04	≤0.03	22.0-25.0	≤0.75	12.0-14.0	≤0.75
	Typical values	0.026	0.77	0.88	0.022	0.014	24.27	0.115	12.37	0.018

PRIMALLOY® JS-309/309L

CHEMICAL COMPOSITION

		C%	Si%	Mn%	P%	S%	Cr%	Mo%	Ni%	Cu%
PRIMALLOY® JS-309L	AWS requirements	≤0.04	≤1.0	0.5-2.5	≤0.04	≤0.03	22.0-25.0	≤0.75	12.0-14.0	≤0.75
	Typical values	0.026	0.77	0.81	0.022	0.014	24.27	0.115	12.37	0.018

TYPICAL OPERATING PROCEDURES

Diameter x Length (mm x mm)	Welding Position	2.5 x 300	3.2 x 350	4.0 x 350	5.0 x 350
Current [A]	1G,2G,2F	50-85	80-120	100-150	140-180
Current [A]	3G up,4G	45-80	70-110	90-140	--

Customer Assistance Policy

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customers particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has not been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

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Authorized Distributor:

The product performance data of this brochure and related attachments are from LINCOLN ELECTRIC application engineering laboratory. Except for special instructions, experiments on welding machines are conducted in accordance with the general standard of IEC60974-1; experiments on welding consumables are conducted in accordance with the general standard of AWS; for specific applicable standards on welding consumables please refer to the product page. The product performance data of this website and related attachments are from LINCOLN ELECTRIC American application engineering laboratory.

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