



# 309L DC Lime

**AWS E309L-15**

Replaces 020520

170-D, INDEX: 060203

## DESCRIPTION:

**309L DC Lime** is excellent when used for weld overlay or for welding stainless steel to mild or low alloy steels. Its low carbon content makes it an outstanding choice when reduced susceptibility to sensitization during high temperature service is an imperative. It has a convex bead and is an excellent choice when welding highly restrained joints or for crack sensitive materials.

Note: Actual certs are included in every master carton of stainless stick electrodes at no charge.

Features	Benefits
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| <ul style="list-style-type: none"><li>• Easy strike and re-strike</li><li>• Electrode doesn't overheat</li><li>• Globular transfer</li><li>• Extremely high moisture resistance</li><li>• All-position</li></ul> | <ul style="list-style-type: none"><li>• Easy to use, less chance of starting defects</li><li>• Less stub loss, cost-effective</li><li>• Low spatter and less clean-up</li><li>• Extends shelf life of product in open environments</li><li>• Welds extremely well in flat, horizontal, vertical (up) and overhead positions</li><li>• Excellent for low temperature (-120°F) impact properties</li></ul> |
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## TYPICAL WELD METAL PROPERTIES\* (CHEM PAD):

Weld Metal Analysis		AWS Spec
Carbon (C)	0.03	0.04 max
Manganese (Mn)	1.32	0.5 to 2.5
Phosphorus (P)	0.025	0.04 max
Sulphur (S)	0.016	0.03 max
Silicon (Si)	0.41	0.90 max
Copper (Cu)	0.10	0.75 max
Chromium (Cr)	23.00	22.0 to 25.0
Nickel (Ni)	13.50	12.0 to 14.0
Molybdenum (Mo)	0.10	0.75 max

## TYPICAL MECHANICAL PROPERTIES\* (AS WELDED):

		AWS Spec
Tensile Strength	79,000 psi (545 MPa)	75,000 psi
Yield Strength	64,000 psi (442 MPa)	not required
Elongation % in 2"	41%	30%
DeLong Ferrite Number Range	6-15	not required
Schaeffler Number Range	6-15	not required
WRC Number Range (1992)	6-15	not required

Note: Nitrogen (N) assumed to be 0.06% for calculation purposes.

## CONFORMANCES AND APPROVALS:

- AWS Spec A5.4, Class E309L-15 • ASME SFA5.4

\*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and McKay expressly disclaims any liability incurred from any reliance thereon. Typical data are obtained when welded and tested in accordance with AWS A5.4 specification. Other tests and procedures may produce different results. No data is to be construed as a recommendation for any welding condition or technique not controlled by McKay.



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## RECOMMENDED WELDING PROCEDURES:

- GENERAL:** DCEP (electrode positive, work negative) or AC
- ARC LENGTH:** Short (less than half the diameter of the electrode)
- FLAT & HORIZONTAL:** Angle electrode 10-15° from 90°
- VERTICAL-UP:** Use weaving techniques. Reduced amperage compared to flat position setting
- OVERHEAD:** Use slight weaving motion within the puddle
- STORAGE:** DC Lime electrodes have a high degree of moisture resistance; however, for critical applications, the electrodes should be held at 225° F after opening.
- RECONDITIONING:** If exposed to atmosphere for extended periods, recondition at 500° F for 1 hour

## RECOMMENDED OPERATING PARAMETERS:            FLAT & HORIZONTAL

Diameter		Type of Power	Minimum Amps	Optimum Amps	Maximum Amps
Inches	mm				
3/32	2.4	DCEP or AC	45	65	80
1/8	3.2	DCEP or AC	55	105	120
5/32	4.0	DCEP or AC	65	140	170
3/16	4.8	DCEP or AC	160	170	205

## AVAILABLE DIAMETERS AND PACKAGES:

Diameter		Length		6-lb. Can	10-lb. Can
Inches	mm	Inches	mm		
3/32	2.4	10	254	S470830-032	—
1/8	3.2	14	355	—	S470844-033
5/32	4.0	14	355	—	S470851-033
3/16	4.8	14	355	—	S470858-033

Material Safety Data Sheets on any McKay product can be obtained from McKay Customer Service.

Because McKay is constantly improving products, McKay reserves the right to change design and/or specifications without notice.