



# 316L DC Lime

AWS E316L-15

Replaces 981211 170-E, INDEX: 020520

## DESCRIPTION:

**316L DC Lime** is designed for joining Type 316 steels with low or medium carbon content. Its fully alloyed core wire also contains very low carbon content to limit susceptibility to sensitization during high temperature service. Ideally suited for urea environments. 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
<ul style="list-style-type: none"><li>Extremely high moisture resistance</li><li>Electrode doesn't overheat</li><li>Easy strike and re-strike</li><li>Globular transfer</li><li>All-position</li></ul>	<ul style="list-style-type: none"><li>Extends shelf life of product in open environments</li><li>Less stub loss, cost-effective</li><li>Easy to use, less chance of starting defects</li><li>Low spatter and less clean-up</li><li>Welds extremely well in flat, horizontal, vertical (up) and overhead positions</li><li>Less chance of slag inclusions</li><li>Excellent for low temperature (-320°F) impact properties</li></ul>
<ul style="list-style-type: none"><li>Self-detaching slag</li><li>Low Oxygen and Nitrogen</li></ul>	

## TYPICAL WELD METAL PROPERTIES\* (CHEM PAD):

Weld Metal Analysis		AWS Spec
Carbon (C)	0.02	0.04 max
Chromium (Cr)	18.20	17.0 to 20.0
Nickel (Ni)	13.00	11.0 to 14.0
Molybdenum (Mo)	2.27	2.0 to 3.0
Manganese (Mn)	1.55	0.5 to 2.5
Silicon (Si)	0.48	0.90 max
Phosphorus (P)	0.015	0.04 max
Sulphur (S)	0.015	0.03 max
Copper (Cu)	0.20	0.75 max

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

		AWS Spec
Tensile Strength	82,000 psi (566 MPa)	70,000 psi
Yield Strength	61,000 psi (421 MPa)	not required
Elongation % in 2"	42%	30%
DeLong Ferrite Number Range	1-5	not required
Schaeffler Number Range	1-5	not required
WRC Number Range (1992)	1-5	not required

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

## CONFORMANCES AND APPROVALS:

- AWS Spec A5.4, Class E316L-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:

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

### RECOMMENDED OPERATING PARAMETERS:

Diameter		Type of Power	FLAT & HORIZONTAL		
Inches	mm		Minimum Amps	Optimum Amps	Maximum Amps
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

### AVAILABLE DIAMETERS AND PACKAGES:

Diameter		Length		6-lb. Can	10-lb. Can
Inches	mm	Inches	mm		
3/32	2.4	10	254	S472330-032	—
1/8	3.2	14	355	—	S472344-033
5/32	4.0	14	355	—	S472351-033