



308/308L Sterling® AP

AWS E308-16 & E308L-16

Replaces 020520

160-B, INDEX: 060127

DESCRIPTION:

Primarily designed for welding type 308L base metal with low or medium carbon content, the **308/308L Sterling® AP** contains low carbon to avert carbide precipitation during welding as well as weld service. Excellent for welding 18 Cr-8 Ni steels. It has a smooth running arc that results in a uniform weld bead that is flat to slightly convex.

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

Features	Benefits
<ul style="list-style-type: none"> Spray-like arc transfer Directional arc Easy strike and re-strike All-position 	<ul style="list-style-type: none"> Low spatter and less clean-up Metal goes where directed Easy to use, less chance of starting defects Welds extremely well in flat, horizontal, vertical (up) and overhead positions
<ul style="list-style-type: none"> Self-detaching slag Extremely high moisture resistance 	<ul style="list-style-type: none"> Less chance of slag inclusions Extends shelf life of product in open environments

TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

Weld Metal Analysis		AWS Spec	
		E-308-16	E-308L-16
Carbon (C)	0.03	0.08 max	0.04 max
Manganese (Mn)	1.00	0.5 to 2.5	0.5 to 2.5
Phosphorus (P)	0.018	0.04 max	0.04 max
Sulphur (S)	0.010	0.03 max	0.03 max
Silicon (Si)	0.50	0.90 max	0.90 max
Copper (Cu)	0.10	0.75 max	0.75 max
Chromium (Cr)	19.00	18.0 to 21.0	18.0 to 21.0
Nickel (Ni)	10.00	9.0 to 11.0	9.0 to 11.0
Molybdenum (Mo)	0.10	0.75 max	0.75 max

TYPICAL MECHANICAL PROPERTIES* (AS WELDED):

		AWS Spec	
		E-308-16	E-308L-16
Tensile Strength	83,000 psi (573 MPa)	80,000 psi	80,000 psi
Yield Strength	64,000 psi (442 MPa)	not required	not required
Elongation % in 2"	42%	35%	35%
DeLong Ferrite Number Range	4-10	not required	not required
Schaeffler Number Range	4-10	not required	not required
WRC Number Range (1992)	4-10	not required	not required

CONFORMANCES AND APPROVALS:

- AWS Spec A5.4, Class E308-16 & E308L-16
- 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 or inverted V. Reduced amperage compared to flat position setting
- OVERHEAD:** Use slight weaving motion within the puddle
- STORAGE:** Sterling AP[®] 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
1/4	6.4	DCEP or AC	180	200	225

AVAILABLE DIAMETERS AND PACKAGES:

Diameter		Length		6-lb. Can	10-lb. Can
Inches	mm	Inches	mm		
3/32	2.4	10	254	S481930-032	—
1/8	3.2	14	355	—	S481944-033
5/32	4.0	14	355	—	S481951-033
3/16	4.8	14	355	—	S481958-033
1/4	6.4	14	355	—	S481980-033

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

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

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