



410 AC-DC

AWS E410-16

Replaces 981211

160-L, INDEX: 020501

DESCRIPTION:

An air-hardening stainless steel stick electrode, **410 AC-DC** is used extensively in welding 12 Cr material and requires post-weld heat treatment. It has a smooth running arc that results in a uniform 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
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| <ul style="list-style-type: none"> • Spray-like arc transfer • Electrode doesn't overheat • Directional arc • Easy strike and re-strike • All-position | <ul style="list-style-type: none"> • Low spatter and less clean-up • Less stub loss, cost-effective • Metal goes where directed • Easy to use, less chance of starting defects • Welds extremely well in flat, horizontal, vertical (up) and overhead positions • Less chance of slag inclusions • Extends shelf life of product in open environments |
| <ul style="list-style-type: none"> • Easy slag release • Extremely high moisture resistance | |

TYPICAL WELD METAL PROPERTIES* (CHEM PAD):

Weld Metal Analysis		AWS Spec
Carbon (C)	0.09	0.04 max
Chromium (Cr)	12.30	18.0 to 21.0
Nickel (Ni)	34.19	9.0 to 11.0
Molybdenum (Mo)	0.08	0.75 max
Manganese (Mn)	0.55	0.5 to 2.5
Silicon (Si)	0.29	0.90 max
Phosphorus (P)	0.016	0.04 max
Sulphur (S)	0.017	0.03 max
Copper (Cu)	0.10	0.75 max

TYPICAL MECHANICAL PROPERTIES*(AS WELDED):

		AWS SPEC
Tensile Strength	80,000 psi (552 MPa)	80,000 psi
Yield Strength	44,000 psi (304 MPa)	not required
Elongation % in 2"	24%	35%
DeLong Ferrite Number Range	2-6	not required
Schaeffler Number Range	2-6	not required
WRC Number Range (1992)	2-6	not required

CONFORMANCES AND APPROVALS:

- AWS Spec A5.4, Class E410-16
- 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. Reduced amperage compared to flat position setting
OVERHEAD:	Use slight weaving motion within the puddle
STORAGE:	AC-DC electrodes have a high degree of moisture resistance; however, for critical applications, the electrode should be held at 225°F after opening
RECONDITIONING:	If exposed to atmosphere for extended periods, recondition at 500°F for one (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
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	S481330-032	—
1/8	3.2	14	355	—	S481344-033
5/32	4.0	14	355	—	S481351-033
3/16	4.8	14	355	—	S481358-033