



Quality Management System  
in accordance with  
**ISO 9001**  
Cert # 05-R0925

# 8015-B2 Low-Alloy Steel Electrode

U.S. ALLOY CO.  
dba Washington Alloy  
7010-G Reames Rd.  
Charlotte, NC 28216  
[www.weldingwire.com](http://www.weldingwire.com)



### ALLOY DESCRIPTION AND APPLICATION;

USA8015-B2 is Cr-Mo covered electrodes commonly used in maintenance and fabrication of 1/2 % Mo and 1/2 -1.25 % Cr where base metals in the power / boiler piping and equipment may be found. 8015-B2 can be used for base metal such as A 397 & A335-P2, P11, P12, A119-T11, A301-B, A217-WC6, and A182-F11. The low hydrogen sodium, powder covering has high deposition with good smooth arc, low spatter and easy slag removal. Preheat of 300-500° F and postheat of 1250-1350°F are often found with this alloy.

### TYPICAL WELDING PROCEDURES; DCEP OPTIMUM IN BOLD

	3/32"	1/8"	5/32"	3/16"	1/4"
Diameter	3/32"	1/8"	5/32"	3/16"	1/4"
Length	14"	14"	14"	14"	18"
Amps Flat	60- <b>90</b> -100	90- <b>140</b> -130	130- <b>170</b> -190	190- <b>235</b> -250	255- <b>275</b> -300
Vertical up & Overhead	60- <b>85</b> -90	80- <b>110</b> -120	110- <b>145</b> -170		

Arc Length = Very short arc, Flat use 15° angle from 90°, Vertical up & Overhead use weaving techniques within puddle

Procedures may vary with change in position, base metals, filler metals, equipment and other changes. Preheat and postheat recommended

### TYPICAL WELD METAL CHEMISTRY (%) AND WELD METAL PROPERTIES;

	AWS Spec.	8015-B2		AWS Spec	8015-B2
Carbon	0.05-0.12	0.06	Tensile Strength (psi)	80,000 min.	97,000
Manganese	0.90 max	0.70	Yield Strength (psi)	67,000	86,000
Silicon	0.80 max	0.610	Elongation in 2"	19 % min.	25%
Phosphorus	0.030 max.	0.011	Charpy V-notch at 72°F	n/a	30 ft-lbs
Sulfur	0.030 max.	0.010	Reduction of area	n/a	55%
Chromium	1.00-1.50	1.32			
Molybdenum	0.40-0.65	0.55			

(STRESS RELIEVED)

**AVAILABLE SIZES:** TE8015-B2 = 10 # containers of 3/32, 1/8, 5/32, 3/16

Other sizes may be available – please inquire

**SPECIFICATIONS;** ANSI/AWS A5.5 E8015-B2  
ASME SFA A5.5 E8015-B2

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