



**Certificate of Conformance
to Requirements for Welding Electrode**

Hobart

Product Type: Hoballoy 8018B2
 Classification: E8018-B2 H4R
 Specifications: AWS A5.5/A5.5M:2014/ASME SFA 5.5
 Diameter Tested:
 Date Tested: 9/16/2016
 Date Generated: 12/1/2016

This is to certify that the product named above and supplied on the referenced order number is of the same classification, manufacturing process, and material requirements as the material which was used for the test that was concluded on the date shown, the results of which are shown below. All tests required by the specifications shown for classification were performed at that time and the material tested met all requirements. It was manufactured and supplied by the Quality System Program of Hobart Brothers, which meets the requirements of ISO9000, ANSI/AWS A5.01, and other specification and Military requirements, as applicable.

Test Settings

Amps	Volts	Size	Polarity	Preheat	Interpass	Travel Speed
200	24	5/32X14 in	AC	325 F (163 C)	375 F (191 C)	+/- 1 in/min
170	24	5/32X14 in	DCEP	325 F (163 C)	375 F (191 C)	+/- 1 in/min
240	25	3/16X14 in	AC	325 F (163 C)	375 F (191 C)	+/- 1 in/min
230	25	3/16X14 in	DCEP	325 F (163 C)	375 F (191 C)	+/- 1 in/min

Mechanical Properties - Tensile

Size / Polarity	Ref. No.	Testing Conditions	Ult. Tensile Strength	Yield Strength	Elong.% in 2"
5/32X14 in / AC	PD1804	SR 1 Hr @ 1275F	99,000 psi (685 Mpa)	86,000 psi (591 Mpa)	24
5/32X14 in / DCEP	PD1805	SR 1 Hr @ 1275F	95,000 psi (654 Mpa)	82,000 psi (565 Mpa)	26
3/16X14 in / AC	PD1806	SR 1 Hr @ 1275F	96,000 psi (663 Mpa)	83,000 psi (571 Mpa)	23
3/16X14 in / DCEP	PD1807	SR 1 Hr @ 1275F	98,000 psi (674 Mpa)	84,000 psi (579 Mpa)	24

Size / Polarity	Ref. No.	Radiograph	Fillet Weld Test			
5/32X14 in / AC	PD1804	Conforms	Horizontal :	Overhead :	Vertical :	Conforms
5/32X14 in / DCEP	PD1805	Conforms	Horizontal :	Overhead :	Vertical :	Conforms
3/16X14 in / AC	PD1806	Conforms	Horizontal :	Overhead :	Vertical :	
3/16X14 in / DCEP	PD1807	Conforms	Horizontal :	Overhead :	Vertical :	

Chemical Analysis

Size / Polarity / Ref. No.	C	Mn	P	S	Si	Cu	Cr	V	Ni	Mo	Al	Ti	Nb	Co	B	W	Sn	Fe	Sb	N	Mg	Zn	Be
5/32X14 in / DCEP / CD09069	0.08	0.63	0.01	0.01	0.62		1.23			0.45													
3/16X14 in / DCEP / CD14107	0.06	0.56	0.01	0.01	0.53		1.18			0.42													

Size: 5/32X14 in	Total H2O Method: RC412 - As Received	Total Coating Moisture: 0.19	Ref. No.: CD09069
Size: 3/16X14 in	Total H2O Method: RC412 - As Received	Total Coating Moisture: 0.17	Ref. No.: CD14107

Diffusible Hydrogen Collected per AWS A4.3 - ml/100 g weld metal

	3.3	ml/100g	For	5/32X14 in	dia
n/a	2.8	ml/100g	For	3/16X14 in	dia

Dave A. Thomas

Dave Thomas , Quality Assurance Rep.

The information Certification and Limited Warranty - Data for the above supplied product are those obtained when welded and tested in accordance with the above specification. All tests for the above classification were satisfied. Other tests and procedures may produce different results. Hobart Brothers produces welding consumables under continuing quality assurance programs audited and approved by the American Bureau of Shipping ("ABS").