HOBART BROTHERS

Certificate of Conformance to Requirements for Welding Electrode

Hobart

Product Type:	**FABSHIELD 21B**
Classification:	**E71T-11**
Specifications:	**AWS A5.20-95; ASME SFA5.20**
Diameter Tested:	**3/32"**
Date Tested:	**2/21/05**
Date Generated:	**5/9/2005**

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 / Polarity	Volts	WFS	Shielding Medium	Electrical Stickout	Preheat	Interpass	Travel Speed
260 / DCEN	20	70 in/min	SELF SHIELDING	3/4" in. (0 mm)	RMT F (C)	300 F (149 C)	7 in/min

Mechanical Properties - Tensile

Shielding Medium	Ref. No.	Testing Conditions	Ult. Tensile Strength	Yield Strength	Elong.% in 2"
SELF SHIELDING	PA1784	Aged 48 Hrs 200F	92,000 psi (635 Mpa)	62,000 psi (430 Mpa)	22

Ref.No.	Radiographic Inspection	Fillet Weld Test					
PA1784	Conforms	Horizontal :	Conforms	Overhead :		Vertical :	

Chemical Analysis

Shielding Medium / 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
SELF SHIELDING / CA20981	0.32	0.30	0.006	0.003	0.18	0.03	0.03	0.01	0.01	0.02	1.00												

J. H. O'Leary

Joe O'Leary , Manager, Quality Assurance

Melvin Seitz , Quality Manager

The information contained or otherwise referenced herein is presented without guarantee or warranty and Hobart Brothers expressly disclaims any liability incurred from any reliance thereon. Data for the above supplied product are those obtained when welded and tested in accordance with the above specification with electrode of the same manufacturing processes and material requirements. All tests for the above classification were satisified. 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 Hobart Brothers. Hobart Brothers produces welding consumables under continuing quality assurance programs audited and approved by American Bureau of Shipping (ABS). ** Please refer to Hobart Brothers Web Site (http://www.hobartbrothers.com) for current MSDS information.