

Product Type: TM-44  
 Classification: E70T-4  
 Specifications: AWS A5.20-2005; ASME SFA 5.20  
 Diameter Tested: 5/64" / 3/32"  
 Date Tested: 11/13/09  
 Date Generated: 11/16/2009

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 dates 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 ISO 9000, ANSI/AWS A5.01, and other specification and Military requirements, as applicable.

### Test Settings

Shielding Medium	Amps/Polarity	Volts	WFS in/min (m/min)	ESO in (mm)	Preheat F (C)	Interpass F (C)	Travel Speed in/min (cm/min)
SELF SHIELDING	350/DCEP	31	190(4.8)	2-1/4(0)	70(21)	300(149)	9(22.9)
SELF SHIELDING	300/DCEP	29	225(5.7)	2-1/4(0)	70(21)	300(149)	9(22.9)

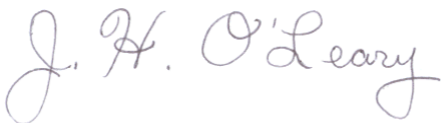
### Mechanical Properties-Tensile

Shielding Medium	Ref. No.	Testing Conditions	Ult. Tensile Strength psi (MPa)	Yield Strength psi (MPa)	Elong. % in 2"
SELF SHIELDING	PB0359	Aged 48 Hrs 200F	91,000(625)	60,000(416)	22
SELF SHIELDING	PB1400	Aged 48 Hrs 200F	94,000(647)	65,000(447)	25

Ref. No.	Radiographic Inspection	Fillet Weld Test
PB0359	Conforms	Horizontal: Conforms Overhead: <input type="checkbox"/> Vertical: <input type="checkbox"/>
PB1400	Conforms	Horizontal: <input type="checkbox"/> Overhead: <input type="checkbox"/> Vertical: <input type="checkbox"/>

### 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/CA89438	0.21	0.69	0.009	0.004	0.30	0.04	0.04	<.01	0.02	<.01	1.54	<.01	<.01	*	*	*	*	*	*	*	*	*	*
SELF SHIELDING/CA90478	0.18	0.76	0.011	0.004	0.35	0.03	0.02	<.01	0.01	0.01	1.70	<.01	0.01	*	*	*	*	*	*	*	*	*	*



Joe O'Leary, Manager, Quality Assurance



Melvin Seitz, Quality Manager

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").