

Product Type: FABSHIELD 81N1
 Classification: E71T8-Ni1 J
 Specifications: AWS A5.29-2005; ASME SFA5.29
 Diameter Tested: 5/64"
 Date Tested: 02/16/10
 Date Generated: 2/19/2010

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

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	250 / DCEN	20	100 (2.5)	1 (25)	300(149)	300(149)	6 (15.2)

Mechanical Properties - Tensile

Shielding Medium	Ref. No.	Testing Conditions	Ult. Tensile Strength psi (MPa)	Yield Strength psi (MPa)	Elong.% in 2"
SELF SHIELDING	PB1932	Aged 48 Hrs 200F	72,000 (499)	61,000 (422)	30

Mechanical Properties - Impact

Shielding Medium	Ref. No.	Testing Conditions	Temp. F (C)	Individuals ft.lb.(J)	Avg. ft.lb.(J)	Type
SELF SHIELDING	PB1932	As Welded	-40 (-40)	296,296,297 (401,401,403)	296 (402)	Charpy-V-Notch

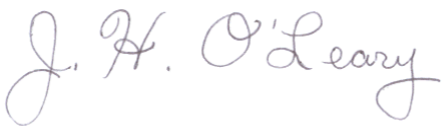
Ref.No.	Radiographic Inspection	Fillet Weld Test			
PB1932	Conforms	Horizontal :	Overhead :	Conforms	Vertical : Conforms

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 / CB04609	0.02	0.81	0.011	0.002	0.06	0.01	0.03	< .01	1.00	< .01	0.68													

Diffusible Hydrogen Collected per AWS A4.3

SELF SHIELDING	4.4 ml/100g of weld metal for 5/64 in diameter
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Joe O'Leary, Manager, Quality Assurance



Daryl Duncan, Development Engineer

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").