

Product Type: In-Flux 410NiMoT1
 Classification: E410NiMoT1-4/-1 (H4)
 Specifications: AWS A5.22
 Diameter Tested: 1/16"
 Date Tested: 02/24/10
 Date Generated: 1/18/2013

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 ISO9001, ANSI/AWS A5.01, and other specification and Military requirements, as applicable. This document supplies actual test results of non-specific inspection in conformance with the requirements of EN 10204, type 2.2 certification.

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)
SG-AC-25	225 / DCEP	26	230 (5.8)	3/4 (19)	400(204)	400(204)	10 (25.4)
SG-C 100%CO2	225 / DCEP	27	230 (5.8)	3/4 (19)	400(204)	400(204)	10 (25.4)

Mechanical Properties - Tensile

Shielding Medium	Ref. No.	Testing Conditions	Ult. Tensile Strength psi (MPa)	Yield Strength psi (MPa)	Elong.% in 2"
SG-AC-25	PB1907	SR 1 Hr @ 1150F	135,000 (931)	118,000 (814)	16
SG-C 100%CO2	PB1911	SR 1 Hr @ 1150F	134,000 (927)	116,000 (799)	17

Mechanical Properties - Impact

Shielding Medium	Ref. No.	Testing Conditions	Temp. F (C)	Individuals ft.lb.(J)	Avg. ft.lb.(J)	Type
SG-C 100%CO2	PB1911	SR 1 Hr @ 1150F	0 (-18)	28,30,30 (38,41,41)	29 (40)	Charpy-V-Notch
SG-AC-25	PB2020	SR 1 Hr @ 1150F	0 (-18)	25,24,25 (34,33,34)	25 (33)	Charpy-V-Notch

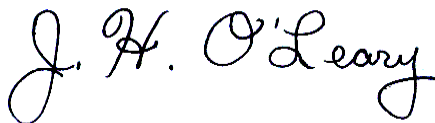
Ref.No.	Radiographic Inspection	Fillet Weld Test			
PB1907	Conforms	Horizontal :	Overhead :	Conforms	Vertical : Conforms
PB1911	Conforms	Horizontal :	Overhead :	Conforms	Vertical : Conforms

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
SG-AC-25 / CB04642	0.33	0.008	0.008	0.008	0.43	0.03	12.3	4.6	0.70														
SG-C 100%CO2 / CB04966	0.25	0.008	0.013	0.34	0.04	12.4	5.0	0.56															

Diffusible Hydrogen Collected per AWS A4.3

SG-AC-25	1.4 ml/100g of weld metal for 1/16 in diameter 38% relative humidity
SG-C 100%CO2	1.4 ml/100g of weld metal for 1/16 in diameter 38% relative humidity



Joe O'Leary, Quality Assurance Rep.

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").