



Certificate of Conformance to Requirements for Welding Electrode

Hobart

Customer:	Product Type:	SDX S3Ni1Mo - EF3 5/32 55 CL
Customer P.O. No.:	Classification:	EF3
Order No.:	Specifications:	AWS A5.23
Stock Number: 840401025H	Diameter Tested:	5/32"
Lbs. Shipped:	Date Tested:	8/10/2015
Date Generated: 12/1/2016	Diameter Shipped:	5/32 in
Lot Nos. Shipped:		

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 ISO 9001, 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)
SWX 150 (F10A8-EF3-F3)	525 / DCEP	29	43 (1.1)	1.25 (32)	300(149)	300(149)	16 (40.6)
SDX 120 (F10P6-EF3-F3)	550 / DCEP	27	46 (1.2)	1 (25)	300(149)	300(149)	
SWX 120 (F10A8-EF3-F3)	550 / DCEP	27	46 (1.2)	1 (25)	300(149)	300(149)	
SWX 150 (F10P8-EF3-F3)	550 / DCEP	27	46 (1.2)	1 (25)	300(149)	300(149)	
HN-590 (F10P4-EF3-F3)	550 / DCEP	27	46 (1.2)	1 (25)	300(149)	300(149)	
HN-590 (F10A6-EF3-F3)	550 / DCEP	27	46 (1.2)	1 (25)	300(149)	300(149)	

Mechanical Properties - Tensile

Shielding Medium	Ref. No.	Testing Conditions	Ult. Tensile Strength psi (MPa)	Yield Strength psi (MPa)	Elong.% in 2"
SWX 150 (F10A8-EF3-F3)	PC1795	Aged 48 Hrs 200F	107,000 (738)	98,000 (676)	24
SDX 120 (F10P6-EF3-F3)	PC6928	SR 1 Hr @ 1150F	106,000 (731)	86,000 (594)	24
SWX 120 (F10A8-EF3-F3)	PC6930	Aged 48 Hrs 200F	106,000 (731)	92,000 (638)	26
SWX 150 (F10P8-EF3-F3)	PC6938	SR 1 Hr @ 1150F	105,000 (724)	92,000 (638)	26
HN-590 (F10P4-EF3-F3)	PC6977	SR 1 Hr @ 1150F	108,000 (745)	91,000 (630)	25
HN-590 (F10A6-EF3-F3)	PC6978	Aged 48 Hrs 200F	108,000 (745)	93,000 (643)	25

Mechanical Properties - Impact

Shielding Medium	Ref. No.	Testing Conditions	Temp. F (C)	Individuals ft.lb.(J)	Avg. ft.lb.(J)	Type
SWX 150 (F10A8-EF3-F3)	PC1795	As Welded	-80 (-62)	103,93,100 (140,126,136)	99 (134)	Charpy-V-Notch
SDX 120 (F10P6-EF3-F3)	PC6928	SR 1 Hr @ 1150F	-60 (-51)	28,47,41 (38,64,56)	39 (52)	Charpy-V-Notch
SWX 120 (F10A8-EF3-F3)	PC6930	As Welded	-60 (-51)	54,55,56 (73,75,76)	55 (75)	Charpy-V-Notch
SWX 150 (F10P8-EF3-F3)	PC6938	SR 1 Hr @ 1150F	-80 (-62)	43,49,49 (58,66,66)	47 (64)	Charpy-V-Notch
HN-590 (F10P4-EF3-F3)	PC6977	SR 1 Hr @ 1150F	-60 (-51)	40,30,17 (54,41,23)	29 (39)	Charpy-V-Notch
HN-590 (F10A6-EF3-F3)	PC6978	As Welded	-60 (-51)	46,59,52 (62,80,70)	52 (71)	Charpy-V-Notch

Ref.No.	Radiographic Inspection	Fillet Weld Test			
PC1795	Conforms	Horizontal :	Overhead :	Vertical :	Vertical :
PC6928	Conforms	Horizontal :	Overhead :	Vertical :	Vertical :
PC6930	Conforms	Horizontal :	Overhead :	Vertical :	Vertical :
PC6938	Conforms	Horizontal :	Overhead :	Vertical :	Vertical :
PC6977	Conforms	Horizontal :	Overhead :	Vertical :	Vertical :
PC6978	Conforms	Horizontal :	Overhead :	Vertical :	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
SWX 150 (F10A8-EF3-F3) / PC1795	0.08	1.55	0.011	0.003	0.31	0.06			0.81	0.44													
SDX 120 (F10P6-EF3-F3) / PC6928	0.07	2.07	0.014	0.007	0.31	0.06			0.80	0.40													
SWX 120 (F10A8-EF3-F3) / PC6930	0.06	2.01	0.013	0.007	0.31	0.06			0.86	0.45													
SWX 150 (F10P8-EF3-F3) / PC6938	0.08	1.66	0.012	0.005	0.37	0.06			0.87	0.42													
HN-590 (F10P4-EF3-F3) / PC6977	0.06	2.11	0.017	0.008	0.39	0.06			0.79	0.37													
HN-590 (F10A6-EF3-F3) / PC6978	0.07	2.17	0.017	0.009	0.36	0.06			0.81	0.40													

Dave A. Thomas

Dave Thomas, 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.