



Certificate of Conformance to Requirements for Welding Electrode

Product Type: HOBART 447A
Classification: E6013
Specifications: AWS A5.1/A5.1M; ASME SFA 5.1
Diameter Tested: 1/8", 5/32"
Date Tested: 7/20/2023
Date Generated: 11/1/2023

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.

MADE IN THE U.S. OF U.S. AND IMPORTED MATERIALS.

Test Settings

Size	Polarity	Amps	Volts	Preheat F(C)	Interpass F(C)
5/32X14 in	DCEN	145	25	225F ()	350F ()
5/32X14 in	AC	150	23	225F ()	300F ()
1/8X14 in	AC	130	27	225 (107)	300 (149)
1/8X14 in	DCEN	130	27	225 (107)	300 (149)

Mechanical Properties - Tensile

Size / Polarity	Ref. No.	Testing Conditions	Ult. Tensile Strength psi(MPa)	Yield Strength psi(MPa)	Elong.% in 2"
1/8X14 in / AC	PE7097	Aged 48 Hrs 220F	77,000 (533)	65,000 (450)	26
1/8X14 in / DCEN	PE7108	Aged 48 Hrs 220F	76,000 (522)	63,000 (436)	26
5/32X14 in / DCEN	PE6449	Aged 48 Hrs 220F	76,000 (521)	67,000 (461)	25
5/32X14 in / AC	PE6592	Aged 48 Hrs 220F	73,000 (505)	64,000 (438)	25

Size / Polarity	Ref. No.	Radiograph	Fillet Weld Test			
1/8X14 in / AC	PE7097	Conforms	Horizontal :	Overhead :	Vertical :	Conforms
1/8X14 in / DCEN	PE7108	Conforms	Horizontal :	Overhead :	Vertical :	Conforms
5/32X14 in / DCEN	PE6449	Conforms	Horizontal :	Overhead :	Vertical :	Conforms
5/32X14 in / AC	PE6592	Conforms	Horizontal :	Overhead :	Vertical :	Conforms

Chemical Analysis

Size / Polarity / 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	Sb	As
5/32X14 in / DCEN / PE6449	0.06	0.32			0.30		0.04	0.01	0.04	0.01															
5/32X14 in / AC / PE6592	0.08	0.39			0.36		0.04	0.01	0.04	0.01															
1/8X14 in / AC / PE7097	0.07	0.47			0.40		0.06	0.01	0.03	0.01															
1/8X14 in / DCEN / PE7108	0.10	0.40			0.33		0.04	0.01	0.02	0.01															

James A. Owens, Q.A. Specialist

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.