



## Certificate of Conformance to Requirements for Welding Electrode

**Product Type:** HOBART 335A  
**Classification:** E6011  
**Specifications:** AWS A5.1/A5.1M; ASME SFA 5.1  
**Diameter Tested:** 5/32" ; 3/16"  
**Date Tested:** 5/4/2022  
**Date Generated:** 9/6/2022

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	DCEP	150	26	225 (107)	300F ( )
3/16X14 in	DCEP	190	25	225F ( )	350F ( )
5/32X14 in	AC	160	25	225F ( )	300F ( )
3/16X14 in	AC	190	25	225F ( )	350F ( )

### Mechanical Properties - Tensile

Size / Polarity	Ref. No.	Testing Conditions	Ult. Tensile Strength psi(MPa)	Yield Strength psi(MPa)	Elong.% in 2"
3/16X14 in / AC	PE4242	Aged 48 Hrs 220F	71,000 ( 487 )	63,000 ( 432 )	<b>25</b>
3/16X14 in / DCEP	PE4047	Aged 48 Hrs 220F	75,000 ( 519 )	61,000 ( 419 )	<b>30</b>
5/32X14 in / DCEP	PE3933	Aged 48 Hrs 220F	78,000 ( 539 )	66,000 ( 452 )	<b>26</b>
5/32X14 in / AC	PE4236	Aged 48 Hrs 220F	79,000 ( 545 )	64,000 ( 441 )	<b>27</b>

### Mechanical Properties - Impact

Size / Polarity	Ref. No.	Testing Conditions	Test Temp. F(C)	Individuals ft.lb.(J)	Average ft.lb.(J)	Type
5/32X14 in / DCEP	PE3933	As Welded	-20 F (-29 C)	43,41,42 (58,56,57)	42 ( 57 )	Charpy-V-Notch
3/16X14 in / DCEP	PE4047	As Welded	-20 F (-29 C)	37,43,38 (50,58,52)	39 ( 53 )	Charpy-V-Notch
5/32X14 in / AC	PE4236	As Welded	-20 F (-29 C)	41,36,33 (56,49,45)	37 ( 50 )	Charpy-V-Notch
3/16X14 in / AC	PE4242	As Welded	-20 F (-29 C)	50,48,62 (68,65,84)	53 ( 72 )	Charpy-V-Notch

Size / Polarity	Ref. No.	Radiograph	Fillet Weld Test			
5/32X14 in / DCEP	PE3933	Conforms	Horizontal :	Overhead :	Conforms	Vertical : Conforms
3/16X14 in / DCEP	PE4047	Conforms	Horizontal :	Overhead :	Conforms	Vertical : Conforms
5/32X14 in / AC	PE4236	Conforms	Horizontal :	Overhead :	Conforms	Vertical : Conforms
3/16X14 in / AC	PE4242	Conforms	Horizontal :	Overhead :	Conforms	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
3/16X14 in / AC / PE3880	0.11	0.38			0.12		0.05	0.01	0.05	0.01															
5/32X14 in / DCEP / PE3933	0.12	0.58			0.20		0.03	0.01	0.03	0.01															
3/16X14 in / DCEP / PE4047	0.11	0.44			0.14		0.05	0.01	0.05	0.01															
5/32X14 in / AC / PE4236	0.10	0.48			0.16		0.02	0.01	0.03	0.01															

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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.