



## 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:** 3/8/2021  
**Date Generated:** 3/23/2021

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	AC	150	26	225°F ( )	300°F ( )
5/32X14 in	DCEP	150	26	225°F ( )	300°F ( )
3/16X14 in	AC	180	25	225°F ( )	350°F ( )
3/16X14 in	DCEP	170	25	225°F ( )	350°F ( )

### 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	PE1998	Aged 48 Hrs 220F	71,000 ( 492 )	60,000 ( 414 )	<b>24</b>
3/16X14 in / DCEP	PE1999	Aged 48 Hrs 220F	75,000 ( 516 )	63,000 ( 437 )	<b>24</b>
5/32X14 in / AC	PE1996	Aged 48 Hrs 220F	78,000 ( 541 )	66,000 ( 454 )	<b>23</b>
5/32X14 in / DCEP	PE1997	Aged 48 Hrs 220F	81,000 ( 556 )	68,000 ( 469 )	<b>26</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 / AC	PE1135	As Welded	-20 F (-29 C)	35,51,35 (47,69,47)	40 ( 55 )	Charpy-V-Notch
5/32X14 in / AC	PE1996	As Welded	-20 F (-29 C)	35,44,35 (47,60,47)	38 ( 52 )	Charpy-V-Notch
5/32X14 in / DCEP	PE1997	As Welded	-20 F (-29 C)	36,41,38 (49,56,52)	38 ( 52 )	Charpy-V-Notch
3/16X14 in / AC	PE1998	As Welded	-20 F (-29 C)	28,36,42 (38,49,57)	35 ( 48 )	Charpy-V-Notch
3/16X14 in / DCEP	PE1999	As Welded	-20 F (-29 C)	35,50,51 (47,68,69)	45 ( 61 )	Charpy-V-Notch

Size / Polarity	Ref. No.	Radiograph	Fillet Weld Test			
5/32X14 in / AC	PE1996	Conforms	Horizontal :	Overhead :	Conforms	Vertical : Conforms
5/32X14 in / DCEP	PE1997	Conforms	Horizontal :	Overhead :	Conforms	Vertical : Conforms
3/16X14 in / AC	PE1998	Conforms	Horizontal :	Overhead :	Conforms	Vertical : Conforms
3/16X14 in / DCEP	PE1999	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
5/32X14 in / AC / PE1996	0.14	0.55			0.20		0.03	0.01	0.02	0.01															
5/32X14 in / DCEP / PE1997	0.13	0.47			0.15		0.03	0.01	0.02	0.01															
3/16X14 in / AC / PE1998	0.10	0.37			0.12		0.04	0.01	0.07	0.01															
3/16X14 in / DCEP / PE1999	0.11	0.45			0.15		0.05	0.01	0.07	0.01															

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.