

## Certificate of Conformance to Requirements for Welding Electrode

Product Type: HOBART 418

Classification: E7018, E7018-1 H4R

Specifications: AWS A5.1/A5.1M; ASME SFA 5.1

Diameter Tested:

Date Tested: 4/9/2020

Date Generated: 7/6/2020

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.

	F U.S. AND IMP	ORTED	MAIL	LKIALS.																				
							Test	Settin	gs											_				
Size		Polarity				Amps				Volts					Preheat F(C)				1	Interpass F(C)				
5/32X14 in	5/32X14 in AC					190				24				П	225 (107)				300F ()					
5/32X14 in	DCEP				175				24				T	225 (107)					300F ()					
3/16X14 in	AC				240				27				T	225 (107)					300°F ()					
3/16X14 in	DCEP				225				27				T	225 (107)				300°F ()						
1/4X18 in	AC				330				28			T	225 (107)			07)	') 300°F ()							
1/4X18 in		DCEP				320					28				225			07)		300°F ()				
					М	echani	cal P	ropert	ies -	ensile														
Size / Polarity	Ref. No.	Tes	ting Co	onditions	U	lt. Tensi	le St	rength	psi(M	Pa)	Yield	Stre	ength	ı psi	(МРа	)			E	∃lon	g.% i	n 2"		
3/16X14 in / AC	PD9398	As Welded				76,000 ( 523 )					62,000 ( 425 )				-)				28					
3/16X14 in / DCEP	PD9399	As Welded				73,000 ( 506 )					59,000 ( 406 )					31								
5/32X14 in / AC	PD9360	As Welded				78,000 ( 536 )					62,000 ( 429 )					23								
5/32X14 in / DCEP	PD9361	As Welded				76,000 ( 523 )					62,000 ( 429 )					31								
1/4X18 in / AC	PD9417	As Welded				79,000 ( 543 )					65,000 ( 451 )				29									
1/4X18 in / DCEP	PD9418		As We	elded		7	4,00	0 ( 513	)		60,000 ( 414 )					31								
						echani	cal P	ropert	ies - I	mpact														
Size / Polarity	Ref. No.	Testing Conditions				Test Temp. F(C)				Individuals ft.lb.(J)					Average ft.lb.(J)				Туре					
5/32X14 in / AC	PD9360	As Welded				-50 F (-46 C)				108,116,102 (146,157,138)				)	109 ( 147 )				Charpy-V-Notch					
5/32X14 in / DCEP	PD9361	As Welded				-50 F (-46 C) 6				8,65,80 (92,88,108)				Т	71 ( 96 )				Charpy-V-Notch					
3/16X14 in / AC	PD9398	As Welded				-50 F (-46 C) 5				50,92,147 (68,125,199)				T	96 ( 131 )					Charpy-V-Notch				
3/16X14 in / DCEP	PD9399	As Welded				-50 F (-46 C)				138,247,103 (187,335,140)				)	163 ( 221 )					Charpy-V-Notch				
1/4X18 in / AC	PD9417	As Welded				-50 F (-46 C)				34,32,32 (46,43,43)				T	33 ( 44 )					Charpy-V-Notch				
1/4X18 in / DCEP	PD9418	As Welded				-50 F (-46 C) 101,10				,106,76	6,76 (137,144,103)				94 ( 128 )					Charpy-V-Notch				
Size / Polarity	Ref. No.	İ	Radiog	raph	┰	Fillet Weld Test																		
3/16X14 in / AC	PD9398	Confor	ms			Horizontal : Conforms Overhead :							Vertical :											
3/16X14 in / DCEP	PD9399	Confor				Horizontal : Conforms Horizontal :				Overhead : Conforms				Vertical : Conform										
5/32X14 in / AC 5/32X14 in / DCEP	PD9360 PD9361	Confor			_		zonta								Confo			+		Vertical : Conforms Vertical : Conforms				
1/4X18 in / AC	PD9417	Confor			_			al : Con	forms		Overhead :					+	Vertical :							
1/4X18 in / DCEP	PD9418	Confor						al : Con			Overhead :					Vertical:								
,						Ch	emi	cal Ana	alysis															
Size / Polarity /	Ref. No.	С	Mn	Р	S	Si	Cu	Cr	V	Ni	Мо	AI	Ti	lb 🛚	Со В	W	Sn	Fe	Sb	И	Mg Z	n E	3e S	Sb
5/32X14 in / DCEF	/ CD62654	0.05	0.98	0.007	0.014	0.52		0.05	< .01	0.06	0.01										T			
3/16X14 in / DCEF	/ CD63009	0.05	0.97	0.006	0.013	0.51		0.03	< .01	0.02	0.01	П				П				$\top$	$\neg$		$\neg$	$\Box$
1/4X18 in / DCEP	/ CD63185	0.04	1.21	0.006	0.012	0.47	П	0.05	< .01	0.06	0.01	П		T		П			П		$\top$		T	T
5/32X14 in / AC	/ PD9360	0.04	1.01	0.008	0.012	0.53	П	0.05	< .01	0.06	0.01	П	$\top$			П			П	$\top$	十	┪	十	$\exists$
5/32X14 in / DCEI	P / PD9361	0.04	1.02	0.009	0.013	0.52	П	0.06	< .01	0.06	0.01	П	$\top$	$\top$	$\top$	П		İ	П	十	$\top$	十	十	
3/16X14 in / AC	/ PD9398	0.06	1.02	0.006	0.010	0.47	П	0.04	< .01	0.03	0.01	П		$\top$		П			П	$\top$	$\top$	$\top$	$\top$	$\neg$
3/16X14 in / DCEI		0.04	1.05	0.005	0.010	0.51	П	0.04	< .01	0.03	0.01	П	$\top$	$\top$	$\top$	П			П	$\top$	十	$\dashv$	$\top$	$\exists$
1/4X18 in / AC /		0.06	1.28	0.009	0.014	0.48	Н	0.06	0.01	0.07	0.01	Н	+	$\dashv$	$\dashv$	Н			$\vdash$	$\top$	$\dashv$	$\dashv$	十	$\dashv$
	P / PD9418	0.06	-	0.008	0.014	-	H		< .01	0.07	0.01	Н	-	+	+	$\vdash$	<del></del>	_	$\vdash$	+	$\dashv$	+	+	_

5/32X14 in / CD62654	Total H2O Method : Train - As Received	Total Coating Moisture : 0.05							
3/16X14 in / CD63009	Total H2O Method : RC412 - As Received	Total Coating Moisture : 0.112							
1/4X18 in / CD63185	Total H2O Method : Train - As Received	Total Coating Moisture : 0.155							
5/32X14 in / PD9361	Total H2O Method : Train - 9 Hour	Total Coating Moisture : 0.378							
3/16X14 in / PD9399	Total H2O Method : Train - 9 Hour	Total Coating Moisture : 0.12							
1/4X18 in / PD9418	Total H2O Method : Train - 9 Hour	Total Coating Moisture : 0.393							
Diffusible Hydrogen Collected per AWS A4.3									
3.2 ml/100g of weld metal for 1/4X18 in diameter 42% relative humidity									
3.0 ml/100g of weld metal for 5/32X14 in diameter 46% relative humidity									
2.5 ml/100g of weld metal for 3/16X14 in diameter 45% relative humidity									



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.