

Product Type:	FabCO 85
Classification:	E70T-5CJ H4; E70T-5MJ H4
Specifications:	AWS A5.20/A5.20M; ASME SFA 5.20
Diameter Tested:	3/32"
Date Tested:	8/30/2024
Date Generated:	9/10/2024

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.

THE STEEL USED IN THIS LOT OF MATERIAL WAS MELTED AND MANUFACTURED IN THE U.S.A.

Shielding Medium Amps / Polarity Volts WFS in/min(m/min) ESD in/min (m/min) Pre-kat (C) Interpase (C) Travel Speed in/min(m/min) M21-ArC-25 425 / DCEP 26 180 (4.6) 1 (25) Rome Temp 300 (14) 12 (30.5) C1 425 / DCEP 26 180 (4.6) 1 (25) Rome Temp 300 (14) 12 (30.5) Shielding Medium Ref. No. Testing Continue UIL testing Verticie Rome Temp 300 (14) 12 (30.5) M21-ArC-25 PE8464 Aged 48 Hrs 220F 78.000 (53) 64.000 (43) 12 (30.5) 300 M21-ArC-25 PE8464 Aged 48 Hrs 220F 78.000 (53) 64.000 (43) 300 <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>-</th> <th>Test :</th> <th>Settii</th> <th>ngs</th> <th></th>								-	Test :	Settii	ngs															
C1 425 / DCEP 26 180 (4.6) 1 (25) Room Temp 300 (49) 12 (30.5) Shielding Medium Ref. No. Testing Conditions Ult. Tensile Strength psi (MPa) Yield Strength psi (MPa) Elong.% in 2* M21-ArC-25 PE8464 Aged 48 Hrs 220F 78,000 (539) 64,000 (439) 30 30 C1 PE8465 Aged 48 Hrs 220F 76,000 (524) 59,000 (409) 32* M21-ArC-25 PE8464 Aged 48 Hrs 220F 76,000 (524) 59,000 (409) 32* Shielding Medium Ref. No. Testing Conditions Temp. F (C) Individuals ft.lb.(J) Avg. ft.lb.(J) Type M21-ArC-25 PE8464 As Weldet -40 (-40) 76,81,88 (103,110,119) 82 (111) Charpy-V-Notel Ref.No. Radiographic Inspection Horizontal : Conforms Overhead : Vertical : Vertical : PE8465 Conforms Horizontal : Conforms Overhead : Vertical : Vertical : Vertical : PE8465 Conforms Overhead : Conforms Overhead : Vertical : Vertical : Vertical :	Shielding Medium		Amps / Polarity			Volts	Volts				ESO in(mm)				Preheat F(C)				Interpass F(C)							
Mechanical Properties - Tensile Shielding Medium Ref. No. Testing Conditions Ult. Tensile Strength psi (MPa) Yield Strength psi (MPa) Elong.% in 2" M21-ArC-25 PE8464 Aged 48 Hrs 220F 78,000 (539) 64,000 (439) 30 C1 PE8465 Aged 48 Hrs 220F 76,000 (524) 59,000 (409) 32 Mechanical Properties - Impact Shielding Medium Ref. No. Testing Conditions Temp. F (C) Individuals ft.lb.(J) Avg. ft.lb.(J) Type M21-ArC-25 PE8464 As Welded -40 (-40) 76,81,88 (103,110,119) 82 (111) Charpy-V-Notcl C1 PE8465 As Welded -40 (-40) 76,81,88 (103,110,119) 82 (112) Charpy-V-Notcl Ref.No. Radiographic Inspection Fillet Weld Test Vertical : Vertical : </td <td>M21-ArC-25</td> <td></td> <td>42</td> <td>5 / D</td> <td>CEP</td> <td>26</td> <td></td> <td colspan="3">180 (4.6)</td> <td>1</td> <td>(25)</td> <td></td> <td colspan="4">Room Temp</td> <td colspan="4">300(149)</td> <td colspan="4">12 (30.5)</td>	M21-ArC-25		42	5 / D	CEP	26		180 (4.6)			1	(25)		Room Temp				300(149)				12 (30.5)				
Shielding Medium Ref. No. Testing Conditions Ult. Tensile Strength psi (MPa) Yield Strength psi (MPa) Elong.% in 2" M21-ArC-25 PE8464 Aged 48 Hrs 220F 78,000 (539) 64,000 (439) 30 C1 PE8465 Aged 48 Hrs 220F 76,000 (524) 59,000 (409) 32 Shielding Medium Ref. No. Testing Conditions Temp. F (C) Individuals fL/b.(J) Avg. fL/b.(J) Type M21-ArC-25 PE8464 As Welded -40 (-40) 76,81,88 (103,110,119) 82 (111) Charpy-V-Notch Ref. No. Testing Conditions Temp. F (C) Individuals fL/b.(J) Avg. fL/b.(J) Charpy-V-Notch Ref.No. Rediographic Inspector Fillet Welded -40 (-40) 86,91,70 (117,123,95) 82 (111) Charpy-V-Notch PE8465 Conforms Overhead Overhead Vertical Image: Strength psi (MPa) No No <td>C1</td> <td></td> <td colspan="3">425 / DCEP</td> <td>26</td> <td colspan="4">26 180 (4.6)</td> <td colspan="4">1 (25)</td> <td colspan="5">Room Temp</td> <td>149)</td> <td></td> <td colspan="4">12 (30.5)</td>	C1		425 / DCEP			26	26 180 (4.6)				1 (25)				Room Temp					149)		12 (30.5)				
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C1 / PE8465 0.06 1.42 0.009 0.01 0.50 0.06 0.04 < .01 0.02 0.01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 < .01 <	•		-			-				<u> </u>						Co	BW	/ Sn	ŀ⊦e	Sb		Mg	Zn Be	3 St	<u>)</u>	
Diffusible Hydrogen Collected per AWS A4.3 M21-ArC-25 2.3 ml/100g of weld metal for 3/32 in diameter 19% relative humidity	M21-ArC-25 / PE84	64	0.06 1.44 0.		0.009	0.009	0.55	0.06	0.04	< .01	0.02	0.01	0.01	< .01	< .01											
M21-ArC-25 2.3 ml/100g of weld metal for 3/32 in diameter 19% relative humidity	C1 / PE8465 0.06 1.42 0.0		0.009	0.010	0.50	0.06	0.04	< .01	0.02	0.01	< .01	< .01	< .01													
					D	Diffusit	ole ⊦	lydro	gen	Colle	cted	per	AWS	A4.3												
C1 2.5 ml/100g of weld metal for 3/32 in diameter 20% relative humidity	M21-ArC-25								2.	3 ml/10	0g of v	weld n	netal for	· 3/32 ir	i diame	eter 19	9% I	elati	ve h	umic	lity					
	C1								2.	5 ml/10	0g of v	weld m	netal for	3/32 ir	i diame	eter 20	1 %C	elati	ve h	umic	lity					

Jenes a Owing

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.