



**Product:** FabCO 811N1  
**Diameter:** 1/16"  
**Shielding Gas:** C1 (100% CO2)  
**Current/Polarity:** DCEP  
**Classification:** E81T1-Ni1CJ H4  
**Specification:** AWS A5.29/A5.29M:2010  
**Test Completed:** 2/9/2024

## Certificate of Conformance

### For AWS D1.8/D1.8M, Seismic Supplement

This is to certify that the product named is of the same classification, manufacturing process, and material requirements as the material, which was used for the test which was concluded on the date shown, the results of which are shown below. All test required by the code or specifications were performed at that time and the material tested met all requirements. The product was manufactured and supplied by the Quality System Program of Hobart Brothers, which meets the requirements of ISO 9001:2015, ANSI/AWS A5.01, and other specification and Military requirements, as applicable.

Test Settings	High Heat Input	Low Heat Input	Lot- # D015372016733	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	64.3 kJ/in	30.0 kJ/in	Mechanical Properties		64.3 kJ/in	30.0 kJ/in
			Test Reference #		PE1796	PE1564
Voltage	24	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	80,000 68,000 19 40	80,500 69,900 27 124	85,500 79,500 26 163
Current (amps)	210	250				
WFS (ipm)	169	220				
Travel Speed (ipm)	4.65	13				
Stick Out	3/4"	3/4"				
# of passes	8	13				
# of layers	4	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	3G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # D015672001732	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.8 kJ/in	30.0 kJ/in	Mechanical Properties		80.8 kJ/in	30.0 kJ/in
			Test Reference #		PE1567	PE1566
Voltage	25	26	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	80,000 68,000 19 40	80,200 69,600 29 154	87,900 81,200 26 156
Current (amps)	220	250				
WFS (ipm)	175	220				
Travel Speed (ipm)	4.1	13				
Stick Out	3/4"	3/4"				
# of passes	7	13				
# of layers	4	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	3G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # H03922	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	78.1 kJ/in	29.4 kJ/in	Mechanical Properties		78.1 kJ/in	29.4 kJ/in
			Test Reference #		PE7543	PE7540
Voltage	25	24	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	80,000 68,000 19 40	79,900 69,000 29 157	84,400 77,900 27 143
Current (amps)	200	220				
WFS (ipm)	170	170				
Travel Speed (ipm)	4.0	10.7				
Stick Out	3/4"	3/4"				
# of passes	8	21				
# of layers	4	8				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	3G	1G				

#### Diffusible Hydrogen - Tested in accordance with AWS A5.29/A5.29M, Clause 16 & Extended Exposure - in accordance with AWS D1.8/D1.8M

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	H03922	HB7385	3.7 (ml/100g)
7 Day Exposure	H03922	HB7442	4.2 (ml/100g)

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James Owens, Quality Assurance Specialist



**Product:** FabCO 811N1  
**Diameter:** 1/16"  
**Shielding Gas:** M21-ArC-25  
**Current/Polarity:** DCEP  
**Classification:** E81T1-Ni1 MJ H4  
**Specification:** AWS A5.29/A5.29M:2010  
**Test Completed:** 12/19/2022

## Certificate of Conformance

### For AWS D1.8/D1.8M, Seismic Supplement

This is to certify that the product named is of the same classification, manufacturing process, and material requirements as the material, which was used for the test which was concluded on the date shown, the results of which are shown below. All test required by the code or specifications were performed at that time and the material tested met all requirements. The product was manufactured and supplied by the Quality System Program of Hobart Brothers, which meets the requirements of ISO 9001:2015, ANSI/AWS A5.01, and other specification and Military requirements, as applicable.

Test Settings	High Heat Input	Low Heat Input	Lot- # C003240601463	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	78.4 kJ/in	28.9 kJ/in	<b>Mechanical Properties</b>		78.4 kJ/in	28.9 kJ/in
			Test Reference #		PD7580	PD7734
Voltage	25	23	Tensile Strength (psi)	80,000	90,000	104,000
Current (amps)	230	220	Yield Strength (psi)	68,000	78,000	97,000
WFS (ipm)	170	170	Elongation (%)	19	25	20
Travel Speed (ipm)	4.4	10.5	Average Charpy V-notch			
Stick Out	3/4"	3/4"	Impact Properties ft•lbs @	40	117	92
# of passes	8	20	+70 °F			
# of layers	5	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	3G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # Z026471824041	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	80.5 kJ/in	30.4 kJ/in	<b>Mechanical Properties</b>		80.5 kJ/in	30.4 kJ/in
			Test Reference #		PD2728	PD2727
Voltage	25	23	Tensile Strength (psi)	80,000	100,000	113,000
Current (amps)	220	220	Yield Strength (psi)	68,000	87,000	108,000
WFS (ipm)	170	170	Elongation (%)	19	24	21
Travel Speed (ipm)	4.1	10	Average Charpy V-notch			
Stick Out	3/4"	3/4"	Impact Properties ft•lbs @	40	111	77
# of passes	9	21	+70 °F			
# of layers	5	6				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	3G	1G				

Test Settings	High Heat Input	Low Heat Input	Lot- # F05959	AWS D1.8 Requirements	High Heat Input	Low Heat Input
	79.5 kJ/in	29.0 kJ/in	<b>Mechanical Properties</b>		79.5 kJ/in	29.0 kJ/in
			Test Reference #		PE4814	PE4813
Voltage	25	23	Tensile Strength (psi)	80,000	91,100	108,000
Current (amps)	222	223	Yield Strength (psi)	68,000	73,500	103,000
WFS (ipm)	180	180	Elongation (%)	19	25	21
Travel Speed (ipm)	4.18	10.7	Average Charpy V-notch			
Stick Out	1/2"-5/8"	3/4"	Impact Properties ft•lbs @	40	134	93
# of passes	9	21	+70 °F			
# of layers	5	7				
Preheat Temp. °F	300+/-25	RT				
Interpass Temp. °F	500+/-50	200+/-25				
Weld Position	3G	1G				

#### Diffusible Hydrogen - Tested in accordance with AWS A5.29/A5.29M, Clause 16 & Extended Exposure - in accordance with AWS D1.8/D1.8M

Condition	Lot - #	Test Reference #	Average (ml/100g)
As Received	G02493	HB6005	3.7 (ml/100g)
7 Day Exposure	G02493	HB6403	7.3 (ml/100g)

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