



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	Mechanical Properties		78.4 kJ/in	28.9 kJ/in
			Test Reference #		PD7580	PD7734
Voltage	25	23	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	80,000 68,000 19 40	90,000 78,000 25 117	104,000 97,000 20 92
Current (amps)	230	220				
WFS (ipm)	170	170				
Travel Speed (ipm)	4.4	10.5				
Stick Out	3/4"	3/4"				
# of passes	8	20				
# 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	Mechanical Properties		80.5 kJ/in	30.4 kJ/in
			Test Reference #		PD2728	PD2727
Voltage	25	23	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	80,000 68,000 19 40	100,000 87,000 24 111	113,000 108,000 21 77
Current (amps)	220	220				
WFS (ipm)	170	170				
Travel Speed (ipm)	4.1	10				
Stick Out	3/4"	3/4"				
# of passes	9	21				
# 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	Mechanical Properties		79.5 kJ/in	29.0 kJ/in
			Test Reference #		PE4814	PE4813
Voltage	25	23	Tensile Strength (psi) Yield Strength (psi) Elongation (%) Average Charpy V-notch Impact Properties ft•lbs @ +70 °F	80,000 68,000 19 40	91,100 73,500 25 134	108,000 103,000 21 93
Current (amps)	222	223				
WFS (ipm)	180	180				
Travel Speed (ipm)	4.18	10.7				
Stick Out	1/2"-5/8"	3/4"				
# of passes	9	21				
# 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)

The information contained or otherwise referenced herein is presented without guarantee or warranty. Hobart Brothers LLC expressly disclaims any liability incurred from any reliance thereon. Data for the above-supplied product are those obtained during the welding process and tested in accordance with the above specification with electrodes of the same manufacturing processes and material requirements. All tests for the above classification were performed satisfactorily. No data is to be construed as a recommendation for any welding condition or technique not controlled by Hobart Brothers. Refer to the Hobart Brothers website at www.hobartbrothers.com for current Safety Data Sheets ("SDS").

James Owens, Quality Assurance Specialist