

Certificate of Conformance

National Standard
1631 Lake Street
Niles, MI 49120

Product: **Tru-Core FC 711**
Classification: E71T-1C H4, E71T-9C H4, E71T-1M H4, E71T-9M H4,
Specification: AWS A5.20, ASME SFA 5.20
Test completion date: April 12, 2011

This is to certify that the product named above and referenced on the sales invoice number is of the same classification, manufacturing process, and raw material requirements as the electrode (cored wire) which was used for the tests conducted on the date shown, the results of which are displayed below. All tests required by the specifications required for classification were performed at that time and the product tested met all requirements. The electrode (cored wire) was manufactured and supplied in accordance with the Quality System Program of RevWires, LLC, located in Troy, Ohio, U.S.A. This Quality System Program meets the requirements of ISO 9001 and ANSI/AWS 5.01.

Operating Parameters	AWS/ASME Requirements	Data and Test Results	Data and Test Results
Electrode Size (in.)	DCEP	1/16 DCEP 100% CO ₂	1/16 DCEP 75-80% argon/balance CO ₂
Polarity		27	27
Shielding Gas (per AWS A5.32)		256	262
Voltage (volts)		275	262
Wire Feed Speed (in/min)		38	35
Current (amps)	20-55	3/4	3/4
Average heat input (kJ/in)		14/7	14/7
Contact tip to work distance (in.)		RT	RT
Passes/Layers		275-325	275-325
Preheat Temp. °F	RT		
Interpass Temp. °F			

Test Assembly Material: ASTM A36
Radiographic Test: Met requirements
Filler Weld Test: Met requirements
Tensile Condition: As welded


		Mechanical Properties of the Weld Deposit (As-welded condition)	
Tensile Strength (ksi)	70-95	76.7	84.2
Yield Strength, 0.2% offset (ksi)	58 min. 22 min.	65.8 31	73.8 30
% Elongation	20.0	56.45, 44.30, 102	62.83, 74.68, 78
Average CVN impact properties ft-lbf @0°F		48 avg.	73.3
Average CVN impact properties ft-lbf @-20°F	20.0	84, 41, 35, 36, 28	52, 55, 52, 49, 58
		35 avg.	53 avg.

Element	Chemical Composition of the Weld Deposit (Weight %)									
AWS/ASME Requirements	C	Mn	Si	P	S	Cr	Ni	Mo	V	Cu
Results (CO ₂)	0.12 Max.	1.75 Max.	0.90 Max.	0.03 Max.	0.03 Max.	0.20 Max.	0.50 Max.	0.30 Max.	0.08 Max.	0.35 Max.
Results (75-80%Ar/Balance CO ₂)	0.04	1.33	0.33	0.01	0.01	0.03	0.02	0.00	0.01	0.07
Results (75-80%Ar/Balance CO ₂)	0.04	1.45	0.41	0.01	0.01	0.03	0.02	0.00	0.01	0.07

Diffusible Hydrogen Data:	
AWS A4.3 Requirements (mL/100g) for Diffusible Hydrogen	4.0 Max. (100% CO ₂)
Results (mL/100g)	2.4 avg
	4.0 Max. (75-80% Ar/balance CO ₂)
	3.5 avg



 Michael T. Merlo, Vice President, Quality



 Date