



Certificate of Conformance to Requirements for Welding Electrodes

This is to certify that the product named below 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 according to the quality system of Tianjin Bridge, which meets the requirements of ISO9001, AWS A5.01, and other specification.

Date Welded: JAN. 10, 2017 Date Tested: JAN. 15, 2017
 Classification: ER70S-6 Specification: AWS A5.18:2005, ASME SAF-5.18
 Product: 035, ER70S-6CU, 44# Heat No.: 201624

Lot No.: 820409

Weld Test Conditions:	Required	Average Results
Electrode Diameter	NA	450
Polarity	DC+	DC+
Shielding Gas	100% CO2	100%CO2
Voltage (V)	27-31	30
Wire Feed Speed (i.p.m.)	427.5-472.5	470
Current (A)	260-290	290
Contact Tip to Work Distance	0.625-0.872	0.87
Travel Speed (i.p.m.)	12-14	14
Passes	NA	13
Preheat Temperature °F (°C)	60 min	RT
Interpass Temperature ° F (° C)	275-325	275-325
Postweld Heat Treatment° F (° C)	NA	As Welded

Mechanical Properties as Welded:

Tensile Strength, psi 66265
 Yield Strength, psi 80185
 Elongation % in 2" 27

Radiographic Inspector ACCEPTABLE

Average Charpy Impact Energy (J @ -30°C) ≥27

Charpy Impact Values 96.0 102.0 100.0

	C	S	Mn	P	Si	Cr	Ni	Mo	V	Cu
Required Chemical Composition:	0.06-0.15	0-0.025	1.4-1.85	0-0.025	0.80-1.15	0-0.15	0-0.15	0-0.15	0-0.03	0-0.50
Actual Chemical Composition:	0.079	0.012	1.470	0.013	0.890	0.020	0.020	0.003	0.002	0.110

Certification: Canadian Welding Bureau Certified



By: TIANJIN BRIDGE WELDING MATERIALS GROUP CO., LTD

Date JAN. 15, 2017