

## AWS D1.8 Seismic Certificate of Conformance

This is to certify that the product stated below is of the same classification, manufacturing process, and material requirements as the electrode used for the testing on the date stated. All tests required by the specifications for classification were performed and the material met all requirements. It was manufactured and supplied according to the quality management system of Select-Arc, Inc., which meets the requirements of ISO 9001 and other applicable specifications. This certificate complies with the requirements of EN 10204, Type 2.2.

Product: Select 70TR  
Diameter(s): 5/64  
Specifications: AWS D1.8:2016  
Classification: E70T-1C, E70T-9C

Test Completion Date: 1/25/2018  
Lot Numbers: (5/64) 1912 1913 1914  
Certificate Expiration Date: 1/25/2021

### Weld Parameters - High Heat Input

Lot Number:	1912	1913	1914
Electrode Diameter:	5/64	5/64	5/64
Shielding Gas	CO2	CO2	CO2
Amperage:	400.0	417.0	400.0
Arc Voltage:	29.0	29.0	29.0
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	8/4	8/4	8/4
Interpass Temperature(°F):	450	450	450
Heat Input Avg.(kJ/in.):	70	73	71

### Mechanical Properties - High Heat Input

Lot Number:	1912	1913	1914	
Shielding Gas	CO2	CO2	CO2	
<b>Requirements</b>	<b>Results</b>	<b>Results</b>	<b>Results</b>	
Test Condition:	As-Welded	As-Welded	As-Welded	
PWHT Temperature:	-	-	-	
Tensile Strength (psi):	70000 min	81000	83000	84000
Yield Strength (psi):	58000 min	70000	71000	72000
Elongation (%):	22 min	29	26	27
Charpy V-Notch Impacts:		60, 64, 60	68, 63, 76	65, 60, 62
ft-lb f @ 70°F	40 avg.	61 avg	69 avg	62 avg

### Weld Parameters - Low Heat Input

Lot Number:	1912	1913	1914
Electrode Diameter:	5/64	5/64	5/64
Shielding Gas	CO2	CO2	CO2
Amperage:	315.0	330.0	315.0
Arc Voltage:	26.0	26.0	26.0
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	14/5	15/5	14/5
Interpass Temperature(°F):	250	250	250
Heat Input Avg.(kJ/in.):	31	33.5	30

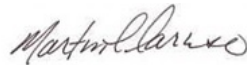
### Mechanical Properties - Low Heat Input

Lot Number:	1912	1913	1914	
Shielding Gas	CO2	CO2	CO2	
<b>Requirements</b>	<b>Results</b>	<b>Results</b>	<b>Results</b>	
Test Condition:	As-Welded	As-Welded	As-Welded	
PWHT Temperature:	-	-	-	
Tensile Strength (psi):	70000 min	90000	90000	103000
Yield Strength (psi):	58000 min	83000	83000	99000
Elongation (%):	22 min	24	24	24
Charpy V-Notch Impacts:		55, 55, 53	60, 66, 63	61, 59, 60
ft-lb f @ 70°F	40 avg.	54 avg	63 avg	60 avg

This product meets the requirements for a 2 week exposure at 80°F, 80% humidity (per Annex E of AWS D1.8:2016)

The undersigned certifies that the product supplied will meet the requirements of the applicable AWS Filler Metal Specification when tested in accordance with that specification.

Signed By: \_\_\_\_\_



**Martin L. Caruso, Director of Technology**