

Diameter: .045

## 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 721

Test Completion Date: 10/24/2017

Diameter(s): .045

Lot Numbers: (.045) 2330 2331 2332

Specifications: AWS D1.8:2016

Certificate Expiration Date: 10/24/2020

Classification: E71T-1M, E71T-9M, E71T-12M

### Weld Parameters - High Heat Input

Lot Number:	2330	2331	2332
Electrode Diameter:	.045	.045	.045
Shielding Gas	90%Ar / 10%CO2	90%Ar / 10%CO2	90%Ar / 10%CO2
Amperage:	200.0	200.0	200.0
Arc Voltage:	22.5	22.5	22.5
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	6/4	6/4	7/4
Interpass Temperature(°F):	450	450	450
Heat Input Avg.(kJ/in.):	69.2	69.2	69.2

### Mechanical Properties - High Heat Input

Lot Number:		2330	2331	2332
Shielding Gas		90%Ar / 10%CO2	90%Ar / 10%CO2	90%Ar / 10%CO2
Requirements		Results	Results	Results
Test Condition:	As-Welded	As-Welded	As-Welded	As-Welded
PWHT Temperature:	-	-	-	-
Tensile Strength (psi):	70000 min	85000	82000	84000
Yield Strength (psi):	58000 min	71000	67000	69000
Elongation (%):	22 min	29	31	28
Charpy V-Notch Impacts:		125, 129, 130	157, 153, 148	150, 151, 145
ft-lb f @ 70°F	40 avg.	128 avg.	153 avg.	149 avg.
Charpy V-Notch Impacts:		119, 122, 124	142, 140, 128	136, 138, 126
ft-lb f @ 32°F	40 avg.	122 avg.	137 avg.	133 avg.

### Weld Parameters - Low Heat Input

Lot Number:	2330	2331	2332
Electrode Diameter:	.045	.045	.045
Shielding Gas	90%Ar / 10%CO2	90%Ar / 10%CO2	90%Ar / 10%CO2
Amperage:	250.0	250.0	250.0
Arc Voltage:	25.5	25.5	25.5
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	13/7	12/6	13/7
Interpass Temperature(°F):	250	250	250
Heat Input Avg.(kJ/in.):	27.7	27.7	27.7

### Mechanical Properties - Low Heat Input

Lot Number:		2330	2331	2332
Shielding Gas		90%Ar / 10%CO2	90%Ar / 10%CO2	90%Ar / 10%CO2
Requirements		Results	Results	Results
Test Condition:	As-Welded	As-Welded	As-Welded	As-Welded
PWHT Temperature:	-	-	-	-
Tensile Strength (psi):	70000 min	92000	94000	94000
Yield Strength (psi):	58000 min	85000	86000	88000
Elongation (%):	22 min	25	24	25
Charpy V-Notch Impacts:		132, 140, 138	100, 94, 93	125, 127, 125
ft-lb f @ 70°F	40 avg.	137 avg.	96 avg.	126 avg.
Charpy V-Notch Impacts:		148, 126, 143	81, 88, 83	124, 123, 123
ft-lb f @ 32°F	40 avg.	139 avg.	84 avg.	123 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: \_\_\_\_\_



Joshua S Westerheide, Quality Manager