

Diameter: 3/32

## 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

Test Completion Date: 11/27/2019

Diameter(s): 3/32

Lot Numbers: (3/32) 0670 1732 1785

Specifications: AWS D1.8:2016

Certificate Expiration Date: 11/27/2022

Classification: E70T-1M, E70T-9M

### Weld Parameters - High Heat Input

Lot Number:	0670	1732	1785
Electrode Diameter:	3/32	3/32	3/32
Shielding Gas	75%Ar / 25%CO2	75%Ar / 25%CO2	75%Ar / 25%CO2
Amperage:	471.0	466.0	491.0
Arc Voltage:	32.0	32.0	32.0
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	9/4	9/4	8/4
Interpass Temperature(°F):	450	450	450
Heat Input Avg.(kJ/in.):	72.5	71.5	73.3

### Mechanical Properties - High Heat Input

Lot Number:		0670	1732	1785
Shielding Gas		75%Ar / 25%CO2	75%Ar / 25%CO2	75%Ar / 25%CO2
Requirements		Results	Results	Results
Test Condition:	As-Welded	As-Welded	As-Welded	As-Welded
PWHT Temperature:	-	-	-	-
Tensile Strength (psi):	70000 min	84000	86000	88000
Yield Strength (psi):	58000 min	67000	70000	73000
Elongation (%):	22 min	28	28	26
Charpy V-Notch Impacts:		69, 71, 79	39, 41, 40	55, 56, 56
ft-lb f @ 32°F	40 avg.	73 avg	40 avg	56 avg
Charpy V-Notch Impacts:		97, 90, 92	79, 66, 84	75, 80, 77
ft-lb f @ 70°F	40 avg.	93 avg	76 avg	77 avg

### Weld Parameters - Low Heat Input

Lot Number:	0670	1732	1785
Electrode Diameter:	3/32	3/32	3/32
Shielding Gas	75%Ar / 25%CO2	75%Ar / 25%CO2	75%Ar / 25%CO2
Amperage:	319.0	318.0	333.0
Arc Voltage:	27.0	27.0	27.0
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	17/8	17/8	15/7
Interpass Temperature(°F):	250	250	250
Heat Input Avg.(kJ/in.):	32.2	31.5	35.3

### Mechanical Properties - Low Heat Input

Lot Number:		0670	1732	1785
Shielding Gas		75%Ar / 25%CO2	75%Ar / 25%CO2	75%Ar / 25%CO2
Requirements		Results	Results	Results
Test Condition:	As-Welded	As-Welded	As-Welded	As-Welded
PWHT Temperature:	-	-	-	-
Tensile Strength (psi):	70000 min	92000	95000	91000
Yield Strength (psi):	58000 min	81000	83000	79000
Elongation (%):	22 min	26	25	26
Charpy V-Notch Impacts:		74, 75, 77	61, 63, 62	76, 68, 85
ft-lb f @ 32°F	40 avg.	75 avg	62 avg	76 avg
Charpy V-Notch Impacts:		98, 96, 95	90, 84, 95	105, 107, 113
ft-lb f @ 70°F	40 avg.	96 avg	90 avg	108 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