

Diameter: 1/16

## 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 820-Ni1

Test Completion Date: 9/30/2020

Diameter(s): 1/16

Lot Numbers: (1/16) 3733 3768 3794

Lot Class: 'T4' per AWS A5.01

Certificate Expiration Date: 9/30/2023

Specifications: AWS D1.8: 2016

Classification: E81T1-NiCJ

### Weld Parameters - High Heat Input

Lot Number:	3733	3768	3794
Electrode Diameter:	1/16	1/16	1/16
Shielding Gas	CO2	CO2	CO2
Amperage:	204.0	202.0	197.0
Arc Voltage:	25.0	25.0	25.0
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	9/4	10/5	10/5
Interpass Temperature(°F):	450	450	450
Heat Input Avg.(kJ/in.):	70.7	67.9	68.2

### Mechanical Properties - High Heat Input

Lot Number:		3733	3768	3794
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	As-Welded
PWHT Temperature:	-	-	-	-
Tensile Strength (psi):	80000 min	80000	80000	82000
Yield Strength (psi):	68000 min	68000	69000	71000
Elongation (%):	19 min	27	30	28
Charpy V-Notch Impacts:		48, 52, 51	78, 83, 73	57, 62, 49
ft-lb f @ 0°F	40 avg.	50 avg	78 avg	56 avg

### Weld Parameters - Low Heat Input

Lot Number:	3733	3768	3794
Electrode Diameter:	1/16	1/16	1/16
Shielding Gas	CO2	CO2	CO2
Amperage:	274.0	272.0	269.0
Arc Voltage:	28.0	27.0	28.0
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	16/8	14/7	16/8
Interpass Temperature(°F):	250	250	250
Heat Input Avg.(kJ/in.):	32.3	33.7	32.3

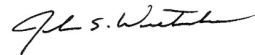
### Mechanical Properties - Low Heat Input

Lot Number:		3733	3768	3794
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	As-Welded
PWHT Temperature:	-	-	-	-
Tensile Strength (psi):	80000 min	86000	88000	85000
Yield Strength (psi):	68000 min	77000	79000	76000
Elongation (%):	19 min	27	26	27
Charpy V-Notch Impacts:		72, 65, 66	46, 56, 71	53, 61, 56
ft-lb f @ 0°F	40 avg.	68 avg	58 avg	57 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