

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
Diameter(s): 1/16
Specifications: AWS D1.8: 2016
Classification: E81T1-NiCJ

Test Completion Date: 8/23/2017
Lot Numbers: (1/16) 0107 0108 8876
Certificate Expiration Date: 8/23/2020

Weld Parameters - High Heat Input

Lot Number:	0107	0108	8876
Electrode Diameter:	1/16	1/16	1/16
Shielding Gas	CO2	CO2	CO2
Amperage:	225.0	224.0	225.0
Arc Voltage:	25.0	25.0	25.0
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	7/4	7/4	7/4
Interpass Temperature(°F):	450	450	450
Heat Input Avg.(kJ/in.):	72.0	72.0	72.0

Mechanical Properties - High Heat Input

Lot Number:		0107	0108	8876
Shielding Gas		CO2	CO2	CO2
Requirements		Results	Results	Results
Test Condition:	As-Welded	As-Welded	As-Welded	As-Welded
PWHT Temperature:	-	-	-	-
Tensile Strength (psi):	80000 min	85000	82000	83000
Yield Strength (psi):	68000 min	72000	69000	71000
Elongation (%):	19 min	27	27	28
Charpy V-Notch Impacts:		62, 66, 60	82, 110, 56	91, 97, 95
ft-lb f @ 32°F	40 avg.	63 avg	83 avg	94 avg
Charpy V-Notch Impacts:		89, 86, 88	131, 115, 138	89, 86, 98
ft-lb f @ 70°F	40 avg.	88 avg	128 avg	91 avg

Weld Parameters - Low Heat Input

Lot Number:	0107	0108	8876
Electrode Diameter:	1/16	1/16	1/16
Shielding Gas	CO2	CO2	CO2
Amperage:	301.0	301.0	300.0
Arc Voltage:	28.0	28.0	28.0
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	21/10	18/9	18/9
Interpass Temperature(°F):	250	250	250
Heat Input Avg.(kJ/in.):	25.0	25.0	25.0

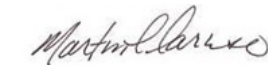
Mechanical Properties - Low Heat Input

Lot Number:		0107	0108	8876
Shielding Gas		CO2	CO2	CO2
Requirements		Results	Results	Results
Test Condition:	As-Welded	As-Welded	As-Welded	As-Welded
PWHT Temperature:	-	-	-	-
Tensile Strength (psi):	80000 min	93000	90000	94000
Yield Strength (psi):	68000 min	86000	84000	88000
Elongation (%):	19 min	27	28	24
Charpy V-Notch Impacts:		41, 45, 45	99, 118, 101	90, 87, 94
ft-lb f @ 32°F	40 avg.	44 avg	106 avg	90 avg
Charpy V-Notch Impacts:		64, 69, 67	112, 116, 100	105, 105, 105
ft-lb f @ 70°F	40 avg.	67 avg	109 avg	105 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