

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 80C-Ni1
Diameter(s): 1/16
Specifications: AWS D1.8: 2016
Classification: E80C-Ni1M

Test Completion Date: 12/12/2017
Lot Numbers: (1/16) 0099-7 0100-6 0101-7
Certificate Expiration Date: 12/12/2020

Weld Parameters - High Heat Input

Lot Number:	0099-7	0100-6	0101-7
Electrode Diameter:	1/16	1/16	1/16
Shielding Gas	90/10	90/10	90/10
Amperage:	350.0	297.0	316.0
Arc Voltage:	29.0	29.0	29.0
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	8/4	9/4	9/4
Interpass Temperature(°F):	450	450	450
Heat Input Avg.(kj/in.):	79	60	68

Mechanical Properties - High Heat Input

Lot Number:		0099-7	0100-6	0101-7
Shielding Gas		90/10	90/10	90/10
Requirements		Results	Results	Results
Test Condition:	As-Welded	As-Welded	As-Welded	As-Welded
PWHT Temperature:	-	-	-	-
Tensile Strength (psi):	80000 min	86000	92000	87000
Yield Strength (psi):	68000 min	71000	79000	73000
Elongation (%):	19 min	27	29	26
Charpy V-Notch Impacts:		93, 96, 98	86, 81, 81	91, 89, 92
ft-lb f @ 70°F	40 avg.	96 avg	83 avg	91 avg
Charpy V-Notch Impacts:		71, 71, 72	62, 58, 62	73, 72, 64
ft-lb f @ 32°F	40 avg.	71 avg	61 avg	70 avg

Weld Parameters - Low Heat Input

Lot Number:	0099-7	0100-6	0101-7
Electrode Diameter:	1/16	1/16	1/16
Shielding Gas	90/10	90/10	90/10
Amperage:	340.0	275.0	280.0
Arc Voltage:	27.5	27.5	27.5
Current Polarity:	DCEP	DCEP	DCEP
CTWD (in):	1	1	1
No. of Passes/Layers:	17/6	17/6	18/6
Interpass Temperature(°F):	250	250	250
Heat Input Avg.(kj/in.):	37	29	30

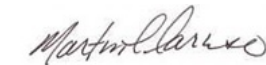
Mechanical Properties - Low Heat Input

Lot Number:		0099-7	0100-6	0101-7
Shielding Gas		90/10	90/10	90/10
Requirements		Results	Results	Results
Test Condition:	As-Welded	As-Welded	As-Welded	As-Welded
PWHT Temperature:	-	-	-	-
Tensile Strength (psi):	80000 min	99000	100000	102000
Yield Strength (psi):	68000 min	92000	94000	96000
Elongation (%):	19 min	25	23	23
Charpy V-Notch Impacts:		85, 92, 91	74, 74, 70	75, 82, 80
ft-lb f @ 70°F	40 avg.	89 avg	73 avg	79 avg
Charpy V-Notch Impacts:		74, 71, 66	68, 66, 68	59, 71, 70
ft-lb f @ 32°F	40 avg.	70 avg	67 avg	67 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