



WASHINGTON ALLOY CO.
 A Division of U.S. Alloy Co.
 825 Groves St.
 Lowell, NC 28098
 sales@washingtonalloy.com
 www.weldingwire.com

CUSTOMER : U.S. ALLOY CO.

DATE : NOV. 15, 2020

Certificate No. : CS-2011-3039

PO NO : _____

Brand Name	Classification	Diameter (mm)	Lot No.	Weight
EAGLE-ARC 719	AWS E71T1-C1A2-CS1-H8/ AWS E491T1-C1A3-CS1-H8	1.4(0.052")	F71LFA0001192	- KG
* Meets all requirements of AWS D1.8/D1.8M:2009/ FEMA 353				

100%CO2

Test Completed: SEP. 21, 2020

Test Conditions	AWS D1.8 Requirement	High Heat Input	Low Heat Input
Electrode Size mm (inch)		1.4(0.052)	1.4(0.052)
Shielding Gas		100%CO ₂	100%CO ₂
Electrode Polarity		DC+	DC+
Travel Speed cm/min (inch/min)		11(4.3)	28(11.0)
Current (amps)		230	220
Arc Voltage (volts)		26	26
Contact Tip to Work Distance mm (inch)		20(0.8)	20(0.8)
Passes / Layers		8 / 5	21 / 7
Preheat Temp. °C(°F)		147(297)	33(91)
Interpass Temp. °C(°F)		251(484)	109(228)
Heat Input kJ/mm (kJ/in) avg.		3.26(83)	1.23(31)
Weld Position		3G	1G
Mechanical Properties			
Yield Strength, 0.2% offset MPa (ksi)	400 (58) min.	519(75)	486(70)
Tensile Strength MPa (ksi)	480 (70) min.	582(84)	556(81)
Elongation (%)	22 min.	29.6	32.4
Avg. Charpy V-notch Impact Properties		156(115)	172(127)
Joles @ 20°C (ft-lbf @ 70°F)	54 (40) min.	150,154,165(111,114,122)	166,171,180(123,127,133)

75%Ar+25%CO2

Test Completed: SEP. 24, 2020

Test Conditions	AWS D1.8 Requirement	High Heat Input	Low Heat Input
Electrode Size mm (inch)		1.4(0.052)	1.4(0.052)
Shielding Gas (per AWS A5.32)		75%Ar+25%CO ₂	75%Ar+25%CO ₂
Electrode Polarity		DC+	DC+
Travel Speed cm/min (inch/min)		11(4.3)	28(11.0)
Current (amps)		210	240
Arc Voltage (volts)		24	26
Contact Tip to Work Distance mm (inch)		20(0.8)	20(0.8)
Passes / Layers		8 / 5	22 / 7
Preheat Temp. °C(°F)		152(306)	29(84)
Interpass Temp. °C(°F)		257(495)	100(212)
Heat Input kJ/mm (kJ/in) avg.		2.75(70)	1.34(34)
Weld Position		3G	1G
Mechanical Properties			
Yield Strength, 0.2% offset MPa (ksi)	400 (58) min.	566(82)	548(79)
Tensile Strength MPa (ksi)	480 (70) min.	627(91)	614(89)
Elongation (%)	22 min.	28.4	28.0
Avg. Charpy V-notch Impact Properties		192(142)	176(130)
Joles @ 20°C (ft-lbf @ 70°F)	54 (40) min.	188,192,197(139,142,146)	169,176,184(125,130,136)

This product satisfies the requirements of AWS D1.8/D1.8M:2009, Annex D after exposure for 3 days at 27°C (80°F) at 80% humidity

David Caldwell

Certification Administrator



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CUSTOMER : U.S. ALLOY CO.

DATE : NOV. 16, 2020

Certificate No. : CS-2011-3055

PO NO : _____

Brand Name	Classification	Diameter (mm)	Lot No.	Weight
EAGLE-ARC 719	AWS E71T1-C1A2-CS1-H8/ AWS E491T1-C1A3-CS1-H8	1.2(0.045")	F71LFA0001192	- LB
* Meets all requirements of AWS D1.8/D1.8M:2009/ FEMA 353				

100%CO2

Test Completed: SEP. 24, 2020

Test Conditions	AWS D1.8 Requirement	High Heat Input	Low Heat Input
Electrode Size mm (inch)		1.2(0.045)	1.2(0.045)
Shielding Gas		100%CO ₂	100%CO ₂
Electrode Polarity		DC+	DC+
Travel Speed cm/min (inch/min)		11(4.3)	28(11.0)
Current (amps)		230	220
Arc Voltage (volts)		26	26
Contact Tip to Work Distance mm (inch)		20(0.8)	20(0.8)
Passes / Layers		8 / 5	21 / 7
Preheat Temp. °C(°F)		148(298)	29(84)
Interpass Temp. °C(°F)		261(502)	108(226)
Heat Input kJ/mm (kJ/in) avg.		3.26(83)	1.23(31)
Weld Position		3G	1G
Mechanical Properties			
Yield Strength, 0.2% offset MPa (ksi)	400 (58) min.	487(71)	492(71)
Tensile Strength MPa (ksi)	480 (70) min.	556(81)	560(81)
Elongation (%)	22 min.	30.8	30.2
Avg. Charpy V-notch Impact Properties		155(115)	162(120)
Joles @ 20°C (ft-lbf @ 70°F)	54 (40) min.	150,156,160(111,115,118)	160,161,166(118,119,123)

75%Ar+25%CO2

Test Completed: SEP. 28, 2020

Test Conditions	AWS D1.8 Requirement	High Heat Input	Low Heat Input
Electrode Size mm (inch)		1.2(0.045)	1.2(0.045)
Shielding Gas (per AWS A5.32)		75%Ar+25%CO ₂	75%Ar+25%CO ₂
Electrode Polarity		DC+	DC+
Travel Speed cm/min (inch/min)		11(4.3)	28(11.0)
Current (amps)		210	240
Arc Voltage (volts)		24	26
Contact Tip to Work Distance mm (inch)		20(0.8)	20(0.8)
Passes / Layers		8 / 5	22 / 7
Preheat Temp. °C(°F)		144(291)	32(90)
Interpass Temp. °C(°F)		255(491)	104(219)
Heat Input kJ/mm (kJ/in) avg.		2.75(70)	1.34(34)
Weld Position		3G	1G
Mechanical Properties			
Yield Strength, 0.2% offset MPa (ksi)	400 (58) min.	532(77)	544(79)
Tensile Strength MPa (ksi)	480 (70) min.	607(88)	607(88)
Elongation (%)	22 min.	28.6	28.0
Avg. Charpy V-notch Impact Properties		150(111)	157(116)
Joles @ 20°C (ft-lbf @ 70°F)	54 (40) min.	143,149,158(106,110,117)	155,157,159(115,116,118)

This product satisfies the requirements of AWS D1.8/D1.8M:2009, Annex D after exposure for 3 days at 27°C (80°F) at 80% humidity

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CUSTOMER : U.S. ALLOY CO.

DATE : NOV. 16, 2020

Certificate No. : CS-2011-3056

PO NO : _____

Brand Name	Classification	Diameter (mm)	Lot No.	Weight
EAGLE-ARC 719	AWS E71T1-C1A2-CS1-H8/ AWS E491T1-C1A3-CS1-H8	1.6(0.062")	F71LFA0001201	LB
* Meets all requirements of AWS D1.8/D1.8M:2009/ FEMA 353				

100%CO2

Test Completed: SEP. 28, 2020

Test Conditions	AWS D1.8 Requirement	High Heat Input	Low Heat Input
Electrode Size mm (inch)		1.6(0.062)	1.6(0.062)
Shielding Gas		100%CO ₂	100%CO ₂
Electrode Polarity		DC+	DC+
Travel Speed cm/min (inch/min)		10.6(4.2)	33.1(13.0)
Current (amps)		240	240
Arc Voltage (volts)		26	26
Contact Tip to Work Distance mm (inch)		20(0.8)	20(0.8)
Passes / Layers		6 / 6	20 / 7
Preheat Temp. °C(°F)		154(309)	31(88)
Interpass Temp. °C(°F)		258(496)	105(221)
Heat Input kJ/mm (kJ/in) avg.		3.53(90)	1.13(29)
Weld Position		3G	1G
Mechanical Properties			
Yield Strength, 0.2% offset MPa (ksi)	400 (58) min.	518(75)	493(71)
Tensile Strength MPa (ksi)	480 (70) min.	593(86)	572(83)
Elongation (%)	22 min.	28.6	30.2
Avg. Charpy V-notch Impact Properties		143(106)	192(142)
Joles @ 20°C (ft-lbf @ 70°F)	54 (40) min.	140,140,150(104,104,111)	182,193,202(135,143,149)

75%Ar+25%CO2

Test Completed: SEP. 30, 2020

Test Conditions	AWS D1.8 Requirement	High Heat Input	Low Heat Input
Electrode Size mm (inch)		1.6(0.062)	1.6(0.062)
Shielding Gas (per AWS A5.32)		75%Ar+25%CO ₂	75%Ar+25%CO ₂
Electrode Polarity		DC+	DC+
Travel Speed cm/min (inch/min)		11.1(4.4)	32.3(12.7)
Current (amps)		240	240
Arc Voltage (volts)		26	25
Contact Tip to Work Distance mm (inch)		20(0.8)	20(0.8)
Passes / Layers		6 / 6	20 / 7
Preheat Temp. °C(°F)		145(293)	29(84)
Interpass Temp. °C(°F)		255(491)	107(225)
Heat Input kJ/mm (kJ/in) avg.		3.37(86)	1.11(28)
Weld Position		3G	1G
Mechanical Properties			
Yield Strength, 0.2% offset MPa (ksi)	400 (58) min.	592(86)	592(86)
Tensile Strength MPa (ksi)	480 (70) min.	650(94)	643(93)
Elongation (%)	22 min.	28.2	27.0
Avg. Charpy V-notch Impact Properties		173(128)	164(121)
Joles @ 20°C (ft-lbf @ 70°F)	54 (40) min.	165,167,187(122,124,138)	154,166,173(114,123,128)

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David Cobwell

Certification Administrator