

**Certificate of Conformance for AWS D1.8**

1. Trade designation: DW-50
2. Size: 1/16 in. (1.6 mm)
3. Shielding gas: 100%CO<sub>2</sub>
4. Current/Polarity: DCEP
5. Specification: AWS A5.20
6. Classification: E71T-1C/M-H8, E71T-9C/M-H8
7. Factory: Ibaraki plant, Japan
8. Test condition:

Heat input conditions	Low heat input	High heat input
Desired heat input level kJ/in. [kJ/cm]	30 [12]	79 [31]
Welding position	Flat(1G)	Vertical up (3G)
Welding Current Amp.	300	200
Arc Voltage V	32	21
Preheat temp. °F [°C]	≤ 120 [≤ 49]	250 ≤ [121 ≤]
Inter-pass temp. °F [°C]	≤ 250 [≤ 121]	450 ≤ [232 ≤]

9. Test result:

Wire diameter in. [mm]	Lot.No.	Average of Heat input kJ/in. [kJ/cm]	Layers -Passes	Tensile properties			Impact properties				
				0.2% O.S.	T.S.	EI	vE+70°F (21°C) ft-lbf [J]				
				ksi [MPa]	ksi [MPa]	(%)	1	2	3	Avg.	
1/16 [1.6]	AF6928 [Original]	30 [12]	7-16	75 [519]	85 [589]	26	114 [154]	122 [165]	117 [159]	118 [159]	
		76 [30]	5-6	64 [438]	78 [538]	32	113 [153]	115 [156]	113 [153]	114 [154]	
	AF6Z94 [Original]	30 [12]	7-16	75 [514]	84 [582]	30	125 [170]	108 [147]	125 [169]	119 [162]	
		74 [29]	5-6	66 [452]	79 [546]	31	117 [159]	113 [153]	119 [161]	116 [158]	
	AF6Z95 [Original]	30 [12]	7-16	75 [518]	85 [584]	29	110 [149]	107 [145]	108 [146]	108 [147]	
		74 [29]	5-6	62 [427]	76 [524]	34	114 [155]	114 [155]	119 [162]	116 [157]	
	AL220513802 [Most recent]	33 [13]	8-19	77 [532]	86 [592]	27	86 [117]	101 [137]	86 [117]	91 [124]	
		74 [29]	5-8	66 [454]	78 [541]	31	127 [172]	111 [150]	112 [152]	117 [158]	
	AWS D1.8 Spec.	Low heat input	24-36 [9-14]	-	58min. [400 min.]	70min. [483 min.]	22 min.	40min. [54min.]			
		High heat input	63-95 [25-37]	-							

10. Diffusible Hydrogen Test

Condition	Lot. No.	Average(ml/100g)
As Received	AL015313802	5
Exposure test (≥72hr)	AL015313802	5
Note 1: Testing method: AWS A5.20		
Note 2: Exposure conditions: AWS D1.8 Annex E		

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