

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

1. Trade designation: DW-50AY
2. Size: 3/32 in. (2.4 mm)
3. Shielding gas: 100%CO<sub>2</sub>
4. Current/Polarity: DCEP
5. Specification: AWS A5.20
6. Classification: E70T-9C
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.	400	400
Arc Voltage V	29	29
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.	
3/32 [2.4]	AN079814873 [Original]	36 [1.4]	8-22	81 [561]	89 [611]	29	116 [157]	118 [160]	117 [159]	117 [159]	
		79 [3.1]	5-6	64 [439]	75 [520]	34	185 [251]	179 [243]	168 [228]	178 [241]	
	AE089914873 [Original]	33 [1.3]	8-22	81 [561]	90 [622]	29	126 [171]	126 [171]	128 [173]	127 [172]	
		81 [3.2]	5-9	62 [428]	74 [513]	39	215 [292]	226 [306]	237 [321]	226 [306]	
	AG089014873 [Original]	33 [1.3]	8-22	82 [565]	89 [611]	28	128 [173]	131 [177]	134 [182]	131 [177]	
		81 [3.2]	5-9	61 [422]	73 [502]	37	244 [331]	245 [332]	268 [364]	252 [342]	
	AN21395 [Most recent]	33 [13]	8-22	80 [549]	88 [606]	28	129 [175]	131 [178]	135 [183]	132 [179]	
		76 [30]	5-9	62 [426]	73 [503]	34	266 [360]	270 [366]	274 [372]	270 [366]	
	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	AN079814873	4
Exposure test (≥ 72hr)	AN079814873	4
Note 1: Testing method: AWS A5.20		
Note 2: Exposure conditions: AWS D1.8 Annex E		

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