

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

1. Trade designation: DW-50
2. Size: 0.045 in. (1.2 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.	280	220
Arc Voltage V	32	26
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.	
0.045 [1.2]	AF6Y525 [Original]	30 [12]	7-16	83 [573]	91 [624]	27	105 [142]	105 [143]	99 [134]	103 [140]	
		74 [29]	5-6	66 [455]	79 [547]	26	94 [127]	102 [138]	87 [118]	94 [128]	
	AF71925 [Original]	30 [12]	7-16	76 [523]	86 [594]	28	114 [155]	108 [147]	105 [142]	109 [148]	
		79 [31]	5-6	64 [439]	79 [542]	29	102 [138]	108 [146]	97 [131]	102 [138]	
	AF71935 [Original]	30 [12]	7-16	76 [524]	86 [593]	29	122 [165]	115 [156]	102 [138]	113 [153]	
		79 [31]	5-6	65 [448]	78 [540]	32	107 [145]	99 [134]	100 [136]	102 [138]	
	AF232113157 [Most recent]	30 [12]	7-16	84 [576]	91 [624]	28	115 [156]	119 [162]	121 [164]	119 [161]	
		86 [34]	5-6	61 [422]	74 [511]	32	186 [252]	181 [246]	188 [255]	185 [251]	
	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	AF02125	3
Exposure test (≥72hr)	AF02125	3
Note 1: Testing method: AWS A5.20		
Note 2: Exposure conditions: AWS D1.8 Annex E		

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