

Certificate of Conformance for AWS D1.8

1. Trade designation: MX-50R
2. Size: 0.052 in. (1.3 mm)
3. Shielding gas: 100%CO2
4. Current/Polarity: DCEP
5. Specification: AWS A5.20
6. Classification: E70T-1C
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]	74 [29]
Welding position	Flat(1G)	Vertical up (3G)
Welding Current Amp.	310	330
Arc Voltage V	31	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.	
0.052 [1.3]	AL719914501 [Original]	30 [12]	6-17	72 [494]	83 [572]	29	90 [122]	84 [112]	83 [114]	86 [116]	
		79 [31]	5-6	58 [403]	74 [510]	32	89 [121]	91 [123]	88 [119]	89 [121]	
	AL719014501 [Original]	30 [12]	6-17	73 [501]	83 [570]	27	76 [103]	77 [104]	81 [110]	78 [106]	
		79 [31]	5-6	59 [408]	76 [523]	32	102 [138]	104 [141]	97 [131]	101 [137]	
	AL719114501 [Original]	30 [12]	6-17	67 [464]	80 [550]	29	84 [114]	83 [113]	82 [112]	83 [113]	
		79 [31]	5-6	60 [414]	77 [532]	30	91 [124]	91 [123]	92 [125]	91 [124]	
	AY230314956 [Most recent]	30 [12]	7-17	78 [541]	88 [609]	26	68 [92]	67 [91]	72 [97]	69 [93]	
		71 [28]	5-6	69 [477]	84 [580]	24	69 [93]	69 [94]	72 [98]	70 [95]	
	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	AL719014501	7
Exposure test (≥72hr)	AL719014501	9
Note 1: Testing method: AWS A5.20		
Note 2: Exposure conditions: AWS D1.8 Annex E		

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