



KOBE STEEL, LTD.
 TECHNICAL CENTER, WELDING BUSINESS
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Certificate of Conformance for AWS D1.8

1. Trade designation: **FAMILIARC™**MX-A70C6SA
2. Size: 0.045 in. (1.2 mm)
3. Shielding gas: 75%Ar-25%CO₂
4. Current/Polarity: DCEP
5. Classification: E70C-6M
6. Specification: AWS A5.18
7. Manufacturer: Ibaraki Plant Welding Business KOBE STEEL, LTD.
8. Test condition:

Heat input conditions	Low heat input	High heat input
Desired heat input level kJ/in. [kJ/mm]	29 [1.2]	65 [2.6]
Welding position	Flat(1G)	Flat(1G)
Welding Current Amp.	270	290
Arc Voltage V	27	28
Preheat temp. °F [°C]	≤120 [≤40]	250≤ [120≤]
Inter-pass temperature °F [°C]	≤250 [≤120]	450≤ [240≤]

9. Test result:

Wire diameter in. [mm]	Lot - #	Average of Heat input kJ/in. [kJ/mm]	Layers - Passes	Tensile properties			Impact properties			
				0.2% O.S. ksi [MPa]	T.S. ksi [MPa]	EI (%)	vE+70°F (20°C) ft•lbs [J]			
							1	2	3	Avg.
0.045" [1.2]	AV4499 15224	29 [1.2]	6-16	75	89	25	125	127	122	125
				[520]	[617]		[169]	[172]	[166]	[169]
		65 [2.6]	5-8	59	78	31	114	118	115	116
				[404]	[540]		[155]	[160]	[156]	[157]
	AV4490 15224	29 [1.2]	6-16	76	90	26	115	125	111	117
				[526]	[623]		[156]	[170]	[151]	[159]
		65 [2.6]	5-8	59	79	32	99	103	120	108
				[405]	[542]		[134]	[140]	[163]	[146]
	AV4491 15224	29 [1.2]	6-16	74	89	23	112	109	111	111
				[512]	[612]		[152]	[148]	[151]	[150]
		65 [2.6]	5-8	59	80	30	99	106	107	104
				[408]	[555]		[134]	[144]	[145]	[141]
AWS D1.8	Low heat input	24-36 [0.9-1.4]	-	58min. [400min.]	70min. [483min.]	22min.	40min. [54min.]			
	High heat input	63-95 [2.5-3.7]	-							

10. Diffusible Hydrogen - Tested in accordance with AWS A4.3

& Extended Exposure - in accordance with AWS D1.8

Condition	Lot - #	Average(mL/100g)
As Received	AV449015224	1.8
72 hours Exposure	AV449015224	2.0

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(Concluded)

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