



KOBE STEEL, LTD.
 TECHNICAL CENTER, WELDING BUSINESS
 100-1, Miyamae, Fujisawa, 251-8551 JAPAN
 Tel:0466-20-3214, FAX:0466-20-3289

Confidential

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Certificate of Conformance for AWS D1.8

1. Trade designation: **FAMILIARC™** DW-50AY
2. Size: 5/64 in. (2.0 mm)
3. Shielding gas: 100%CO₂
4. Current/Polarity: DCEP
5. Classification: E70T-9C
6. Specification: AWS A5.20
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]	33 [1.3]	66 [2.6]
Welding position	Flat(1G)	Flat(1G)
Welding Current Amp.	380	400
Arc Voltage V	33	29
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.	
5/64" [2.0]	AN32905 14873	30 [1.2]	8-22	74 [511]	83 [573]	29	162 [222]	159 [219]	174 [239]	165 [227]	
		66 [2.6]	5-10	61 [419]	74 [513]	35	193 [265]	182 [250]	186 [256]	187 [257]	
	AN32915 14873	33 [1.3]	8-21	71 [491]	82 [562]	29	167 [229]	172 [237]	165 [227]	168 [231]	
		66 [2.6]	5-10	61 [422]	74 [509]	34	267 [367]	258 [355]	257 [353]	261 [358]	
	AN32925 14873	33 [1.3]	8-21	72 [494]	82 [565]	31	175 [240]	180 [248]	189 [260]	181 [249]	
		66 [2.6]	5-10	60 [417]	73 [506]	34	263 [362]	267 [367]	213 [293]	248 [341]	
	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 A5.20, Clause16 & Extended Exposure - in accordance with AWS D1.8

Condition	Lot - #	Average(mL/100g)
As Received	AN3291514873	3.2
72 hours Exposure	AN3291514873	3.9

K. Fukuda

Kazuhiro Fukuda
 Senior Researcher
 Welding Process Dept.
 Technical Center
 Welding Business
 KOBE STEEL, LTD.

N. Sawaguchi

Naoya Sawaguchi
 Manager of Quality Assurance Section
 Quality Management Dept.
 Welding Business
 KOBE STEEL, LTD.

Y. Sasaki

Yoshiteru Sasaki
 QA Manager
 Ibaraki Plant
 Welding Business
 KOBE STEEL, LTD.

(Concluded)

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