

Product Type: Quantum Arc 6
 Classification: ER70S-6
 Specifications: A5.18 /SFA 5.18, F-6, A-1
 Diameter Tested:
 Date Tested: 06/15/09
 Date Generated: 1/21/2010

This is to certify that the product named above and supplied on the referenced order number is of the same classification, manufacturing process, and material requirements as the material which was used for the test that was concluded on the date shown, the results of which are shown below. All tests required by the specifications shown for classification were performed at that time and the material tested met all requirements. It was manufactured and supplied by the Quality System Program of Hobart Brothers, which meets the requirements of ISO9000, ANSI/AWS A5.01, and other specification and Military requirements, as applicable.

Test Settings

Shielding Medium	Amps / Polarity	Volts	WFS in/min(m/min)	ESO in(mm)	Preheat F(C)	Interpass F(C)	Travel Speed in/min(cm/min)
75AR/25C02	260-290 / DCEP	31	450 (11.4)	3/4 +/- 1/8 (0)	Room Temp()	325 (163)	13 (33)
100% CO2	260-290 / DCEP	30	450 (11.4)	3/4 (19)	Room Temp()	325 (163)	13 (33)

Mechanical Properties - Tensile

Shielding Medium	Ref. No.	Testing Conditions	Ult. Tensile Strength psi (MPa)	Yield Strength psi (MPa)	Elong.% in 2"
75AR/25C02	PA8198	As Welded	82,000 (565)	68,000 (469)	27
100% CO2	PB0439	As Welded	80,000 (552)	65,000 (451)	30

Mechanical Properties - Impact

Shielding Medium	Ref. No.	Testing Conditions	Temp. F (C)	Individuals ft.lb.(J)	Avg. ft.lb.(J)	Type
75AR/25C02	pa8198	As Welded	-20 (-29)	108,113,114 (146,153,155)	112 (151)	Charpy-V-Notch
100% CO2	PB0439	As Welded	-20 (-29)	65,46,63 (88,62,85)	58 (79)	Charpy-V-Notch

Ref.No.	Radiographic Inspection	Fillet Weld Test			
PA8198	Conforms	Horizontal :	Overhead :	Vertical :	Vertical :
PB0439	Conforms	Horizontal :	Overhead :	Vertical :	Vertical :

Chemical Analysis

Shielding Medium / Ref. No	C	Mn	P	S	Si	Cu	Cr	V	Ni	Mo	Al	Ti	Nb	Co	B	W	Sn	Fe	Sb	N	Mg	Zn	Be
NONE / CA95413	0.08	1.41	0.008	0.012	0.80	0.2	0.10	0.01	0.09	< .01													



Steve Knostman, Quality Engineer



Guo Hao, R & D Engineer

Certification and Limited Warranty - Data for the above supplied product are those obtained when welded and tested in accordance with the above specification. All tests for the above classification were satisfied. Other tests and procedures may produce different results. Hobart Brothers produces welding consumables under continuing quality assurance programs audited and approved by the American Bureau of Shipping ("ABS").