

Product Type: ROCKET 7024
 Classification: E7024
 Specifications: AWS A5.1/A5.1M:2004
 Diameter Tested:
 Date Tested: 08/21/07
 Date Generated: 8/31/2007

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

Amps	Volts	Size	Polarity	Preheat	Interpass	Travel Speed
210	34	5/32X14 in	AC	325 F (163 C)	325 F (163 C)	+ 1 in/min
200	36	5/32X14 in	DCEN	325 F (163 C)	325 F (163 C)	+ 1 in/min
330	29	1/4X18 in	DCEN	225 F (107 C)	325 F (163 C)	+ 1 in/min
335	38	1/4X18 in	AC	225 F (107 C)	325 F (163 C)	+ 1 in/min
240	32	3/16X18 in	AC	225 F (107 C)	325 F (163 C)	+ 1 in/min
235	34	3/16X18 in	DCEN	225 F (107 C)	325 F (163 C)	+ 1 in/min

Mechanical Properties - Tensile

Size / Polarity	Ref. No.	Testing Conditions	Ult. Tensile Strength	Yield Strength	Elong.% in 2"
5/32X14 in / AC	PA5972	Aged 48 Hrs 220F	76,000 psi (524 Mpa)	67,000 psi (463 Mpa)	28
5/32X14 in / DCEN	PA5975	Aged 48 Hrs 220F	75,000 psi (517 Mpa)	65,000 psi (449 Mpa)	28
3/16X18 in / AC	PA5990	Aged 48 Hrs 220F	77,000 psi (531 Mpa)	71,000 psi (487 Mpa)	27
3/16X18 in / DCEN	PA5991	Aged 48 Hrs 220F	75,000 psi (517 Mpa)	68,000 psi (472 Mpa)	28
1/4X18 in / DCEN	PA5979	Aged 48 Hrs 220F	74,000 psi (514 Mpa)	68,000 psi (472 Mpa)	28
1/4X18 in / AC	PA5980	Aged 48 Hrs 220F	74,000 psi (511 Mpa)	67,000 psi (463 Mpa)	25

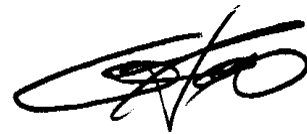
Size / Polarity	Ref. No.	Radiograph	Fillet Weld Test			
5/32X14 in / AC	PA5972	Conforms	Horizontal :	Conforms	Overhead :	Vertical :
5/32X14 in / DCEN	PA5975	Conforms	Horizontal :	Conforms	Overhead :	Vertical :
3/16X18 in / AC	PA5990	Conforms	Horizontal :	Conforms	Overhead :	Vertical :
3/16X18 in / DCEN	PA5991	Conforms	Horizontal :	Conforms	Overhead :	Vertical :
1/4X18 in / DCEN	PA5979	Conforms	Horizontal :	Conforms	Overhead :	Vertical :
1/4X18 in / AC	PA5980	Conforms	Horizontal :	Conforms	Overhead :	Vertical :

Chemical Analysis

Size / Polarity / 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
5/32X14 in / DCEN / CA60465	0.04	0.62	0.009	0.011	0.33		0.05	0.02	0.07	0.01													
3/16X18 in / DCEP / CA60469	0.05	0.57	0.010	0.016	0.30		0.04	0.02	0.06	0.01													
1/4X18 in / DCEN / CA60470	0.03	0.47	0.007	0.013	0.26		0.04	0.02	0.07	0.01													



Steve Knostman , Quality Engineer



Guo Hao , R & D Engineer

The information 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").