



T H E H A R R I S P R O D U C T S G R O U P
A L I N C O L N E L E C T R I C C O M P A N Y

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TECHNICAL SPECIFICATION SHEET

ISO 9001
 Cert. No. 31598

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ALUMINUM BRONZE A1 WELDING WIRE

NOMINAL COMPOSITION:

Silicon	.10 % max.	Aluminum	6.0-8.5 %
Lead	.02 % max.	Zinc	.10 % max
Copper	Balance	Iron	1.5 % max
Others	.50 % max.	Manganese	.50% max.
Copper	Balance		

PHYSICAL PROPERTIES:

Melting Point	1945F (1046 C)	Reduction of area	53 %
Yield Strength	28,000 psi	Tensile Strength	68,000 psi
Elongation	47 %	Brinell Hardness	125 HB

Used to overlays on shafts, propellers, housings, couplings, bushings, valve seats, pumps, and other surfaces needing a bronze wearing surface.

RECOMMENDED WELDING PARAMETERS:

*GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray transfer

<u>Wire Diameter</u>	<u>Amps</u>	<u>Volts</u>	<u>Argon (cfh)</u>	<u>Wire Feed ipm</u>	
.030	80-140	25-26	25		340-450
.035	130-200	26-27	30		280-400
.045	185-245	27-28	30		200-300
1/16	250-400	28-30	40		150-210

*GTAW (Tig) Parameters (DCSP) ² Electrode negative or ACHF

<u>Material</u>	<u>2%Thoriated ²</u>	<u>Filler Wire Size</u>	<u>Amps (DC)</u>	<u>Amps (AC)</u>	<u>Gas Cup</u>	<u>Argon(cfh)</u>
1/16"	1/16"	1/16"	80-120	80-20	3/8-1/2	15
3/32"-1/8"	3/32"	3/32"	145-205	145-195	7/16-1/2	15
3/16"	1/8"	3/32"-1/8"	300-350	255-300	7/16-1/2	20
1/2"	3/16"	1/8"	515-640	340-485	1/2	25

* All parameters are suggested as basic guidelines and will vary depending on joint design, number of passes and other factors.

SPECIFICATION COMPLIANCE: ANSI/AWS A5.7 & ASME SFA 5.7 ERCuAl-A1

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WARNING: PROTECT yourself and others. Read and understand this information.

FUMES AND GASES can be hazardous to your health.

ARC RAYS can injure eyes and burn skin.

ELECTRIC SHOCK can KILL.

- Before use, read and understand the manufacturer's instructions, Material Safety Data Sheets (MSDS), and your employer's safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1, *Safety in Welding, Cutting, and Allied Processes*, published by the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126; OSHA Safety and Health Standards, available from the U.S. Government Office, Washington, DC 20402.

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