



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
4501 Quality Place • Mason, OH 45040 U.S.A Tel: 513-754-2000 Fax: 513-754-6015

TECHNICAL SPECIFICATION SHEET

ISO 9001
Cert. No. 31598

DEOXIDIZED COPPER WELDING WIRE

STATEMENT OF LIABILITY- DISCLAIMER

Any suggestion of product applications or results is given without representation or warranty, either expressed or implied. Without exception or limitation, there are no warranties of merchantability or of fitness for particular purpose or application. The user must fully evaluate every process and application in all aspects, including suitability, compliance with applicable law and non-infringement of the rights of others. The Harris Products Group and its affiliates shall have no liability in respect thereof.

NOMINAL COMPOSITION:

| | | | |
|-----------|-------------|------------|------------|
| Manganese | .50 % max. | Tin | 1.0 % max. |
| Lead | .02 % max. | Phosphorus | .15 % max. |
| Copper | 98.0 % min. | Silicon | .50 % max. |
| Aluminum | .01 % max. | Others | .50 % max. |

PHYSICAL PROPERTIES:

| | | | |
|--------------------------------------|---------------|---------------------------------|-------------|
| Melting Point | 1967F (1075C) | Reduction of area | 45 % |
| Yield Strength | 8,000 psi | Tensile Strength | 29,000 psi. |
| Elongation | 29 % | Electrical Conductivity (%IACS) | 40% |
| Brinell Hardness 54 HB (500 kg load) | | | |

APPLICATION:

Used to weld copper base metals where good electrical conductivity

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 | 130-150 | 21-23 | 25 | 460-500 |
| .035 | 145-185 | 23-25 | 30 | 400-440 |
| .045 | 195-215 | 26-28 | 30 | 280-310 |
| 1/16 | 260-280 | 27-30 | 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" | 70-150 | 70-150 | 3/8-1/2 | 15 |
| 3/32"-1/8" | 3/32" | 3/32" | 150-200 | 140-230 | 7/16-1/2 | 15 |
| 3/16"- 1/2" | 1/8" | 3/32"-1/8" | 230-400 | 225-320 | 7/16-1/2 | 20 |
| 1/2"-1" | 3/16" | 3/16"-1/4" | 325-500 | 290-485 | 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 A 5.7 & ASME SFA-5.7 ERCu

| | | |
|-----------------------|------|--------------|
| Harris Products Group | Fax | 513-754-8778 |
| 4501 Quality Place | Tel. | 513-754-2000 |
| Mason, Ohio 45040 | | 800-733-4533 |

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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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