A LINCOLN ELECTRIC COMPANY

# TECHNICAL INFORMATION SHEET

## STAY SILV® 5 BRAZING FILLER METAL

**CHEMICAL COMPOSITION%:**

| | |
|---|---|
| Phosphorus | 5.9 |
| Copper | Remainder |
| Silver | 5.0 |
| Other (total) | 0.15 |

**TYPICAL PHYSICAL PROPERTIES:**

| | |
|---|---|
| Solidus | 1190ºF (643°C) |
| Liquidus | 1500°F (815°C) |
| Brazing Range | 1350°F- 1550°F (7232C -843°C) |
| Electrical Conductivity | 5.6 (% IACS) |
| Density | 0.280 (lb. /cu.in.) |

**BRAZING PROPERTIES:**

Stay Silv 5 silver brazing filler metal designed for copper to copper applications. It can also be used on copper to low zinc brass but this application requires use of Stay Silv white brazing flux.

Like many phosphorus/copper brazing filler metals Stay Silv 5 will flow rapidly when heated quickly to its liquidus. This allows penetration into tight clearance connections. With slower heating the alloy melting range provides the ability to filler wider gaps.

Stay Silv 5 is often chosen as an economical alternative to higher silver content alloys for copper and brass applications.

Stay Silv 5 is not recommended for brazing steel or other ferrous base metals. In these applications the phosphorus content promotes formation of a low ductility intermetallic with the base metal.

**CORROSION RESISTANCE:**

Generally similar to the copper base metal, but phosphorus containing alloys, including Stay Silv 5, should not be used if the braze is exposed to sulfur or sulfur compounds in service.

**AVAILABLE FORMS:**

Stay Silv 5 is often used in rod form in manual brazing applications. It is available formed as brazing rings or on spools for automated feeding.

**RECOMMENDED FLUX:**

No flux is required for copper to copper applications. Stay-Silv® white flux is suitable for brass. When flux is required Harris ECO SMART™ boric acid free flux is an excellent choice to promote sound brazed assemblies and comply with European REACH requirements.

**SPECIFICATION COMPLIANCE:**

AWS A5.8 BCuP-3, ASME SFA 5.8 BCuP-3, ISO 17672 CuP 281

**SAFETY INFORMATION:**

WARNING: PROTECT yourself and others. Read and understand this information.
FUMES AND GASES can be hazardous to your health.
HEAT RAYS,(infrared radiation) from flame or hot metal), can injure eyes.

- Before use, read and understand the manufacturer's instructions, Safety Data Sheets (SDS), and your employer's safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the flame, or heat source, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- See American National Standard Z49.1, *Safety in Welding, Cutting, and Allied Processes,* published by the American Welding Society, 8669 Doral Blvd., Doral, Florida 33166; OSHA Safety and Health Standards, available from the U.S. Government Office, Washington, DC 20402.

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**THE HARRIS PRODUCTS GROUP**
A LINCOLN ELECTRIC COMPANY
**4501 Quality Place • Mason, OH 45040 U.S.A Tel: 513-754-2000 Fax: 513-754-6015**
**Additional information available at our web site: www.harrisproductsgroup.com**