



TECHNICAL INFORMATION SHEET

HARRIS 94/6 TIN / SILVER SOLDER

NOMINAL CHEMICAL COMPOSITION%:

Ag 5.4 – 5.8
Sn Remainder

PHYSICAL PROPERTIES:

Solidus 221°C (430°F)
Liquidus 279°C (535°F)
Deposit color – silver
Shear Strength (copper lap joint) – 10,600 PSI
Electrical conductivity (%IACS) – 16.4
Density (lbs./cu.in.) – 0.271

SOLDERING PROPERTIES:

Harris 94/6 is a lead-free solder engineered to provide a strong, ductile connection on copper, brass, steel, and stainless steel. The silver color is also a good color match to stainless steel. 94/6 differs from Harris 96/4 as its higher silver content provides a melting range vs. The 96/4 single temperature melting point. The melting range makes it suitable for soldering connections with a wider clearance. 94/6's low temperature characteristic promotes capillary flow and less base metal distortion and oxidation.

AVAILABLE FORMS:

Standard wire diameters in spools, and reformed rings.

RECOMMENDED FLUX:

Harris Stay Clean paste flux and Harris Bridgit® Burn resistant paste flux are good choices for soldering copper and brass. For copper tube, and plumbing applications we recommend Harris Water Soluble flux (ASTM B813). For soldering steel or stainless steel, Harris recommends Stay Clean® liquid flux. Stay Clean liquid is an active flux that provides improved oxide removal and protection when soldering ferrous metals. Remove flux residue upon completion.

SPECIFICATION COMPLIANCE:

ASTM B-32 Alloy Grade Sn94



- National Sanitation Foundation (NSF) Standard 51 for food service equipment.
- NSF/ANSI Standard 61, Drinking Water System Components
- NSF/ANSI 372 & US Safe Drinking Water Act amendments.

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 flames or hot metal can injure eyes.

SOLDER FLUX may contain chlorides, acids, or other ingredients that are considered hazardous via inhalation, ingestion, or skin or eye contact.

- Before using it, 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.

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 a 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.

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