



## TECHNICAL INFORMATION SHEET

### 40/60 ACID CORE TIN LEAD SOLDER

#### NOMINAL CHEMICAL COMPOSITION %:

Lead	Remainder
Tin	39.5-41.5
Antimony	0.50 max

#### TYPICAL PHYSICAL PROPERTIES:

Solidus	361°F (183°C)
Liquidus	448°F (231°C)

#### SOLDERING PROPERTIES:

Leaded solder 40/60 acid core is used to solder many ferrous and non-ferrous base metals, (except aluminum). The solder contains an activated flux core and a separate flux application is typically not required. Cored solder is used for small connections, as there is a limited amount of flux available to protect the surface. Heat sources include soldering guns, irons, and air-fuel torches.

Tin-lead solder is not recommended in high stress or vibration joints in the cooling industry due to lack of sufficient elongation properties. Acid core solder is not recommended for electrical or electronic application due to corrosive properties of the flux residue.

**Lead bearing solders are not to be used in potable water systems.**

#### AVAILABLE FORMS

Standard wire diameters

#### RECOMMENDED FLUX:

A separate flux application is generally not required with acid core solders as flux is contained inside the core. Stay Clean® liquid flux may be used if parts are large or additional flux is needed. Remove flux residue after soldering.

#### SPECIFICATION COMPLIANCE:

ASTM B32 Sn40A TYPE WOAP2  
J-STD-006C Sn40Pb60Sb0.4  
J-STD-004-ORH1

#### 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.

#### 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.

#### 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](http://www.harrisproductsgroup.com)