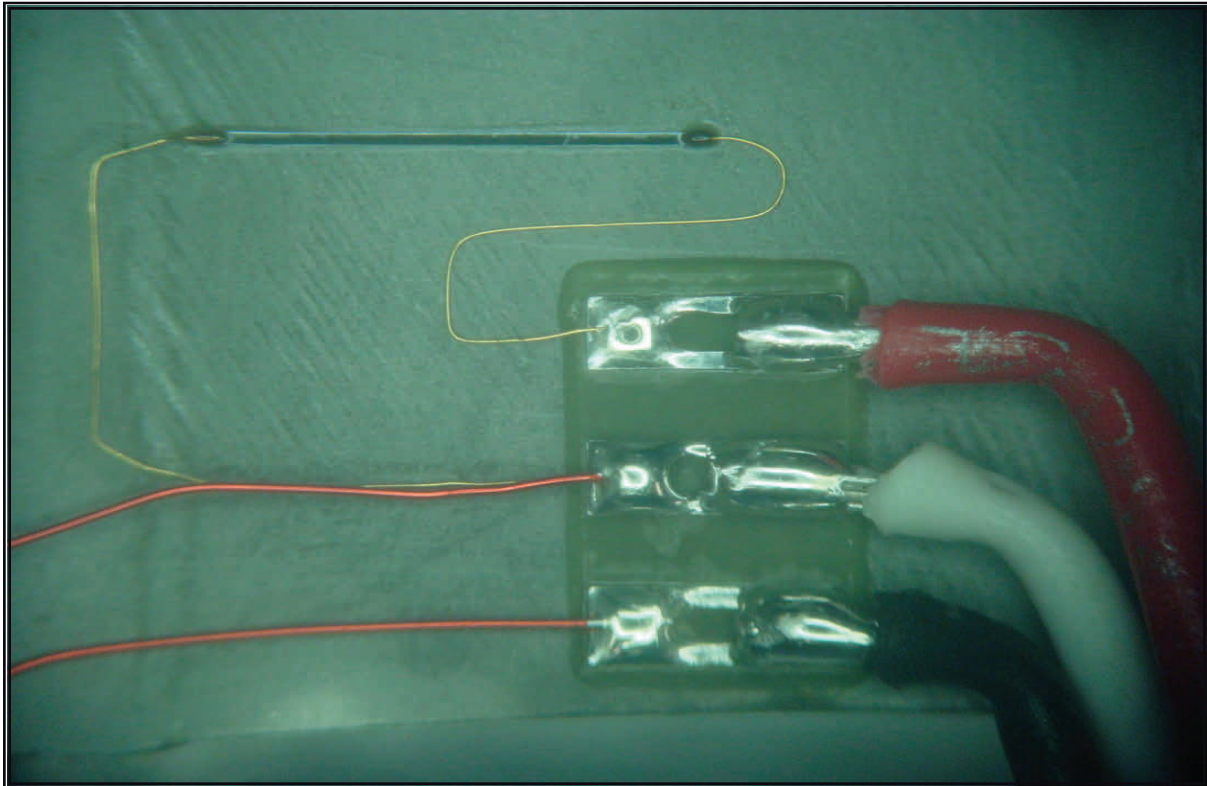


# Bondable Solder Terminal Preparation and Installation



## INTRODUCTION

Bondable solder terminals are used to interconnect the delicate wires attached to the sensor device to more robust wires leading to any piece of acquisition equipment. (See photograph below for a typical application).



## SCOPE

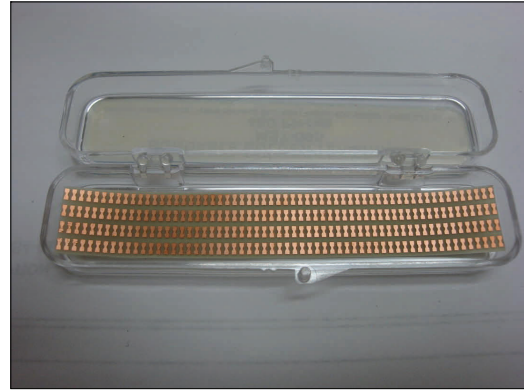
These instructions detail the procedures for preparing and installing Bondable Solder Terminals.

**RECOMMENDED EQUIPMENT**

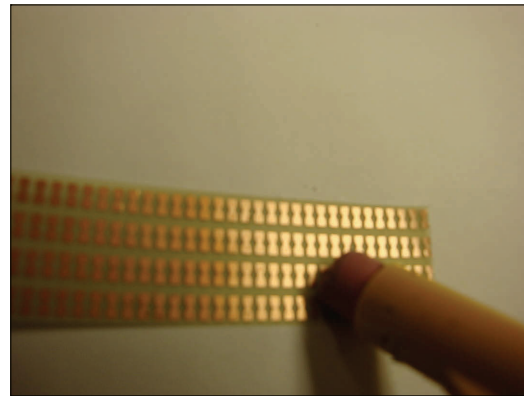
- Tweezers, REM Model Assay or equivalent.
- Scissors – 6 inch.
- Soldering Iron, ANTEX with No.6 NS tips or equivalent.
- Soldering iron control unit – Hot Tools Inc Model - dial temp.
- Eraser.
- Applicator brush – McMaster Carr 7237T3 available at [www.mcmaster.com](http://www.mcmaster.com)
- No. 000 red or white sable/camel hairbrush x 2.
- Emery paper – SCP-1 220 grit.
- Scotch tape - ½ inch wide.
- Glass beaker – 50ml.
- Rosin soldering flux #186 – KESTER available at [www.kester.com](http://www.kester.com)
- Epoxy adhesive M-Bond 600 or M-Bond 610 available from VISHAY at [www.vishay.com](http://www.vishay.com)
- Isopropyl alcohol.
- Bondable Solder Terminals.

**PROCEDURE**

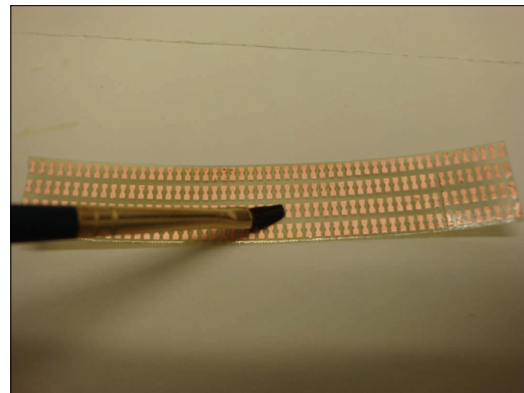
**1.1.1** Micron bondable solder terminals are supplied in bulk form in a plastic container. Depending on the size of the terminals, the number of strips per sheet will vary.



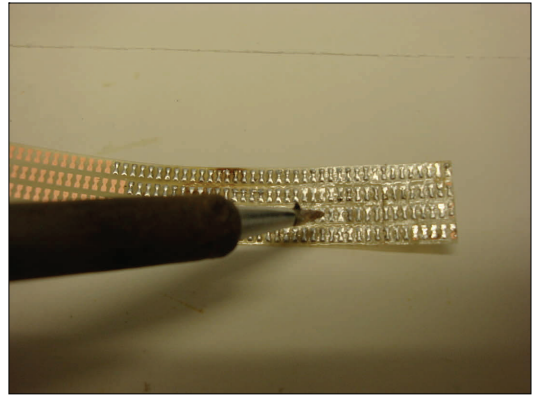
**1.1.2** An oxide will form on the copper surface of the copper pads during storage. This oxide will prevent the solder from easily adhering to the copper surface. To remove the oxide, lay the sheets out flat copper side up. Hold both ends down with either tape or your fingers and scrub the copper pads with a pencil erasure. You will notice the copper will take on a shiny appearance.



**1.1.3** Dip one of the sable or camel hair brushes into the soldering flux and paint a thin layer evenly across the surface of the copper terminals.



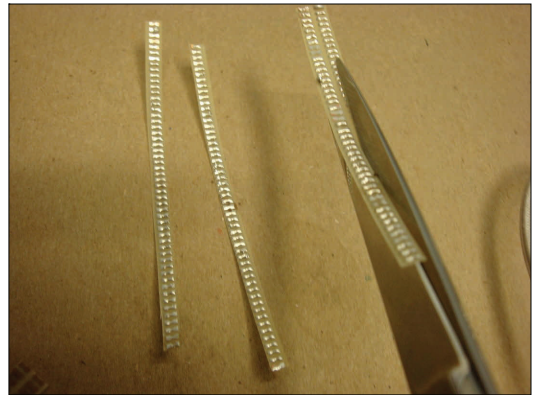
**1.1.4** Using the tip of the soldering iron “tin” the terminals



**1.1.5** Pour isopropyl alcohol into the 50 ml beaker. Dip the applicator brush into the isopropyl alcohol. Remove any excess flux from the surface of the sheet of terminals by gently scrubbing the terminals with the alcohol wetted applicator brush. Allow the cleaned surface to air dry.



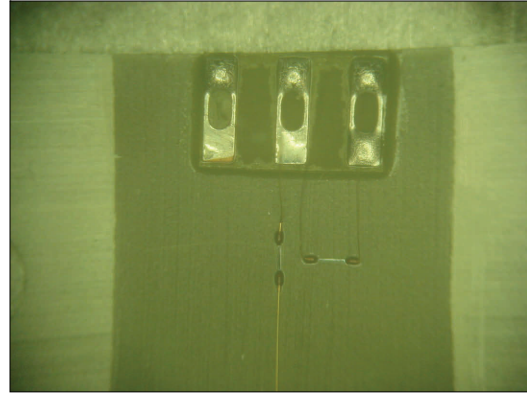
**1.1.6** Using 6 inch scissors, cut the sheet of terminals into strips.



**1.1.7** Cut the strip into individual terminals or pairs, as needed.



**1.1.8** Dip the second sable or camel hair brush into the epoxy adhesive and coat the surface on which the terminals are to be placed. Using tweezers, pick up and place the bondable solder terminal onto the epoxy-coated area. Allow the epoxy adhesive to cure as per the manufacturer's instructions.



**1.1.9** Solder the interconnect wires from the sensor to one side of the bondable solder terminal. Solder the wire(s) leading to the data acquisition equipment to the other end of the bondable solder terminal.

