

Applying 95/5% Indium/Tin to Sample Corners in Preparation for Mounting onto Spring Clip Sample Mount



If you have a larger piece of InSn, place a small amount on an insulating material (we have used a spare piece of a silicon substrate) and melt it using a soldering iron.



Set the soldering iron to 350°C to 400°C for best results.



Using a razor blade knife, cut tiny fragments of the cooled InSn so that it can be applied to the corners of the sample.

As opposed to standard solder, InSn maintains good ohmic contact even when submerged in LN₂, and it does not contain solder resin which might inhibit ohmic contact.

InSn can usually be used as the electrical conductivity material for corner contacts, however, for some samples silver paste or carbon paste are recommended to improve ohmic contact.

Soldering in four points, using iron.

Use the soldering iron to melt the InSn into the four corners of the material. It should be done as close to the edge as possible. If the sample has not been annealed, it might be helpful to keep the soldering iron in contact for about one minutes to improve ohmic contact.

Pushing on four point soldering

Transparent paper

After soldering on the contacts, it is helpful to allow the contact to cool, then using a plastic bag placed over the sample, use the flat edge of the razor blade knife to slightly mash down the contact so that it is flat on top. This will help the spring clip board pin to make better contact.

Soldering finished

Sample, ready to be mounted onto spring clip mounting system of either HMS-5000 or Spring Clip Board of HMS-3000.