



STANNOL

STANNOL ANALYSIS SERVICE

Stand: June 2008

We offer our customers the opportunity to examine the quality of the used solder and thus to ensure a constant soldering quality.

General Information

During the soldering process the solder in the solder bath contaminates with impurities of the solder pot and the soldered components, so that the solder quality can be impaired.

Regular monitoring of composition and contamination of the solder ensures high process reliability, since deviations can be detected and defects can be avoided. For lead-free soldering this is of more importance than for soldering with lead-containing alloys because of the dissolution of copper e.g. Moreover the lead content must be kept under 0.1% to ensure RoHS conformity.

Conduct of the sampling procedure

We need to have a homogeneous sample of at least 100g for a representative analysis. A careful implementation is of great importance. Any mistakes occurring during this procedure can reduce the significance of the analysis results considerably. Please note following items when you take the sample:

- Never take the sample after a longer downtime of the soldering machine. Please only take the sample after min. 2 - 3 hours operation time. Please make sure to mix the solder bath by stirring or pumping.
- The sample must be taken with a clean dipper (important if you do not only use lead-free for example) from the middle (not from the surface) of the solder bath.
- If you use a wave soldering machine, the sample must be taken directly from the wave.
- The sample must be free from slag, dross and other inclusions.
- Uninterrupted casting into a cold mould; the mould must be filled completely.

It is necessary to cast the sample into our special form for solder bath samples because otherwise we would have to re-cast it into the correct shape. We would have to charge this modification like non-Stannol material. We provide this mould to our customers free of charge.

After cooling down you can easily take the sample out of the mould and mark it.

Marking of the sample

Please mark the surface (not the plane underside) of the sample with the date of the sampling and an indication. A simple and distinct marking (e.g. sample 1 or annex 1) is recommended for a later identification. Please use a waterproof pen. Please avoid the usage of labels or adhesive tapes on the sample. If you send us each sample in a small plastic bag, you can note the marking thereon.

Please send the sample(s) free of freight charges to your contact person in charge at Stannol. Your covering letter should contain following details:

- **company name**
- **contact details (name of contact person, telephone number, fax number, email address)**
- **used alloy**
- **number of samples**
- **date of sampling**
- **marking/identification of samples**

Evaluation of the analysis

The analysis is done by using optical emission spectrometry. The values and the recommended limits for impurities in the alloy will be submitted to you in written form by fax or email.