

Preform Packaging Guide



Packaging is a key element in the design of a solder preform. With the proper packaging, preforms can be efficiently introduced into any manufacturing process. It is also essential to the protection of the parts during transport.

Bulk Packaging is the least expensive method and is ideal for large, sturdy preforms, such as squares, rectangles, discs, or washers. The preforms are packed in plastic jars and can be transferred to bowl feeders or used in a manual operation.

Layer Packaging is used for thinner parts that might be damaged in a jar. The parts are scattered in layers between protective materials. There are typically 4-6 layers per box.

Stack Packs are used for indium-containing parts that need to be isolated to avoid cold-welding.

Tape & Reel and Waffle Packaging are both designed to hold the preform in its own individual pocket to facilitate retrieval by a pick and place machine. The tape & reel is placed on a spool, similar to the component tape & reel process. Waffle packaging uses flat trays and can be used either in automated or manual manufacturing operations.

The size of the pocket is critical in both tape & reel and waffle pack to insure the part is protected and can be easily extracted from the pocket.

Other Factors to Consider

In addition to the dimensions and the alloy, the following factors should also be considered when specifying the packaging:

- How will the parts be introduced into the manufacturing process?
- What is the environment in which the parts will be opened and used (i.e., will you need static-free or clean room level packaging?)
- Will you need argon packaging, moisture barrier, and/or vacuum sealing?
- How many parts are required per container?
- Will you need any special labeling (i.e., bar- or color-coding)?

Shelf Life

Shelf life is the length of time a product can be kept in storage and still retain the original solder properties.

Since oxidation is one of the most important characteristics that can compromise the quality and strength of a solder joint, and because lead is the metal that oxidizes most readily, we consider the lead content of the preform in determining the shelf life of the product.

Shelf life is one year from the date of manufacture if the lead content is 70% or less, and six months if the lead content is greater than 70%, provided preforms are stored in their original sealed containers in a nitrogen dry box.

APPLICATION NOTE

This Application Note is provided for general information only. It is not intended, and shall not be construed, to warrant or guarantee the performance of the products

described which are sold subject exclusively to written warranties and limitations thereon included in product packaging and invoices.

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