INDIUM CORPORATION®

PRODUCT DATA SHEET

Solder Fortification®
Preforms

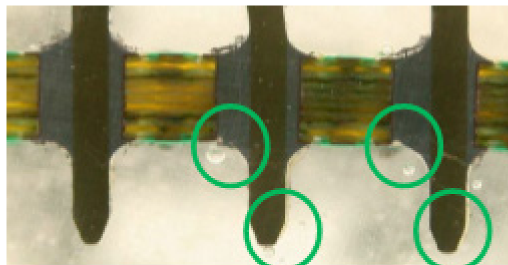
Features

- Increased solder volume
- Improved drop test results
- Fewer issues with flux residue
- Reduced rework
- Improved fillet shape and volume

Introduction

Obtaining the correct amount of solder to ensure a strong solder joint is critical in electronics manufacturing. However, miniaturization trends, such as the reduction of stencil thickness and more tightly fitted components make this increasingly difficult. **Solder Fortification® Preforms** can provide the solution for these challenging issues

Solder Fortification® Preforms are generally rectangle- or disc-shaped pieces of alloyed metal that do not contain any flux. The preform is added to a deposit of solder paste using standard pick and place equipment. Since the alloy for both the preform and the solder paste are the same, the preform will reflow at the same temperature as the solder paste, with the solder paste providing the necessary flux. The preform increases the volume of solder above what could be achieved with just solder paste, especially for stencils with a pitch of 0.3mm or less.



The solder preform + solder paste solution delivered excellent through-hole solder joints.

Solder starvation in PIP processed solder joint. Also note the excess residual flux.

Advantages

The advantages of **Solder Fortification® Preforms** include:

- Increased solder volume compared to what could be achieved with just solder paste
- Fewer issues with flux residue
- Elimination of costly or time-consuming processes, such as wave soldering or selective soldering
- Stronger solder joints which help improve drop test results
- Reduced rework and other manual processes to add solder volume
- Improved shape and volume of fillet to ensure joints meet IPC specifications

Packaging

Solder Fortification® Preforms are packaged in tape & reel for easy placement by standard pick and place machines.

Common Alloys

- SAC305
- SAC 387
- Sn63
- Sn62
- BiSn
- BiSnAg

OVER→

Form No. 98552 R5

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Solder Fortification® Solution Options

Name	Size	Quantity Per Reel		Example Weight SAC 305 (grams/ea)
		7″	13″	
0201	.010″ x .020″ x .010″ rectangle	1k	50k	0.00024
0402	.020″ x .040″ x .020″ rectangle	1k	15k	0.00182
0603	.030″ x .060″ x .030″ rectangle	1k	15k	0.00672
0805	.050″ x .080″ x .050″ rectangle	1k	15k	0.02410

Technical and Customer Support

Indium Corporation's internationally experienced engineers provide in-depth technical assistance to our customers. Thoroughly knowledgeable in all facets of Material Science as it applies to the electronics and semiconductor sectors, Technical Support Engineers provide expert advice in solder properties, alloy compatibility and selection of solder preforms, wire, ribbon and paste. Indium Corporation's Technical Support engineers provide rapid response to all technical inquiries.

Safety Data Sheets

The SDS for this product can be found online at http://www.indium.com/sds

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