

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-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.

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.



Standard Sizes (other sizes available on request):

Size (inches)	Size (metric)	Shape	Solder Weight (each)
0.010" x 0.020" x 0.010"	0.254mm x 0.508mm x 0.254mm	Rectangle	0.00024g
0.020" x 0.040" x 0.019"	0.508mm x 1.01mm x 0.48mm	Rectangle	0.00182g
0.030" x 0.060" x 0.031"	0.76mm x 1.52mm x 0.787mm	Rectangle	0.00672g
0.050" x 0.080" x 0.050"	1.27mm x 2.03mm x 1.27mm	Rectangle	0.0241g
0.060" x 0.120" x 0.060"	1.52mm x 3.04mm x 1.52mm	Rectangle	0.0521g
0.035"	0.88mm	Sphere	0.00272g
0.063"	1.6mm	Sphere	0.0159g

Alloys

Solder Fortification® Preforms are available in virtually any alloy to correspond to the alloy in the solder paste.

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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Form No. 98552 R3

www.indium.com

askus@indium.com

ASIA: Singapore, Cheongju: +65 6268 8678
 CHINA: Suzhou, Shenzhen: +86 (0)512 628 34900
 EUROPE: Milton Keynes, Torino: +44 (0) 1908 580400
 USA: Utica, Clinton, Chicago, Rome: +1 315 853 4900



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SAC 305 Solder Fortification® Solution Options

Name	Size	Weight (grams/ea)	IPN	Quantity per reel	Lead time
0201-10	.010" x .020" x .010" rectangle	0.00024	Rectangleto-155006-1K (SAC 305)	1000 per 7" reel (evaluation only)	SAC 305 in stock
0201-10	.010" x .020" x .010" rectangle	0.00024	Rectangleto-155006 (SAC 305)	50k per 13" reel	4-5 weeks
0402-19	.020" x .040" x .020" rectangle	0.00182	Rectangleto-152978-1K (SAC 305)	1000 per 7" reel (evaluation only)	SAC 305 in stock
0402-19	.020" x .040" x .020" rectangle	0.00182	Rectangleto-152978 (SAC 305)	15k per 13" reel	2-3 weeks
0603-31	.030" x .060" x .030" rectangle	0.00672	Rectangleto-152145-1K	1000 per 7" reel (evaluation only)	SAC 305 in stock
0603-31	.030" x .060" x .030" rectangle	0.00672	Rectangleto-152145	15K per 13" reel	2-3 weeks
	0.035" spheres	0.00272	Sphereto-42344-1K	1000 per 7" reel (evaluation only)	SAC 305 in stock
	0.035" spheres	0.00272	Sphereto-42344	25K per 13" reel	TBA
	0.063" spheres	0.0158	Sphereto-41539-1K	1000 per 7" reel	SAC 305 in stock
	0.063" spheres	0.0158	Sphereto-41539	7.5k per 13" reel	TBA



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www.indium.com

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