

Main Advantages of S3X58-M405

1) Better fine pitch printability and viscosity stability in long term printing

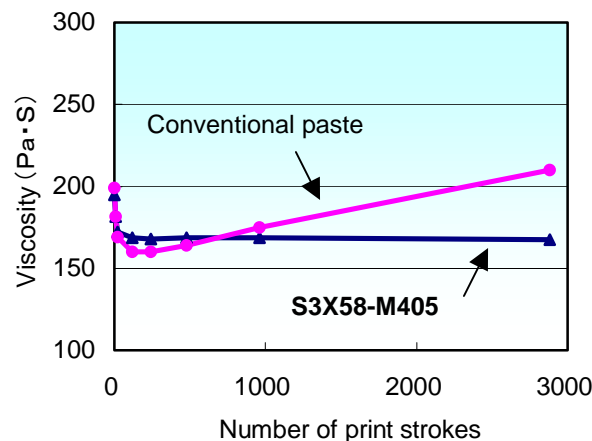
Very well fitted for the application of super fine line (<16 mil pitch) and micro components (0201, uBGA).

In general, lead free alloy, such as SnAgCu, has much poorer wetting performance than conventional Sn/Pb.

In order to enhance wetting, lead free solder pastes tend to adopt aggressive activators, primarily organic acids or halide type.

Such aggressive activators could result in increased viscosity and cause serious problems on print quality.

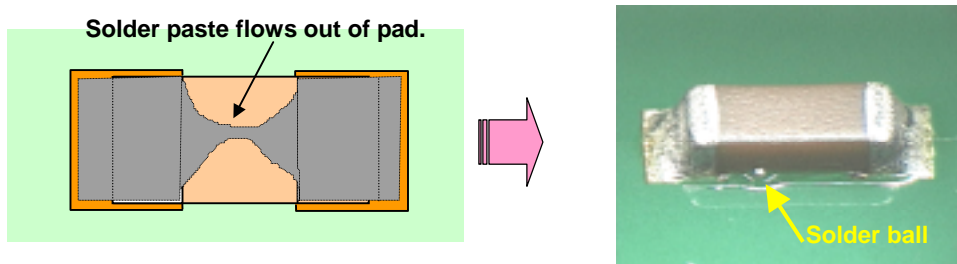
S3X58-M405 has achieved extremely stable viscosity under long term continual printing conditions.



2) Few mid-chip solder balling

Lead free solder pastes might cause increased mid-chip solder balling than conventional Sn/Pb solder paste due to less wetting power to the terminations of chip components and higher surface tension.

Koki S3X58-M405 ensures reduced mid-chip solder balling due to its extremely high heat slump resistance which prevents solder paste from flowing underneath the chip component during reflow process.

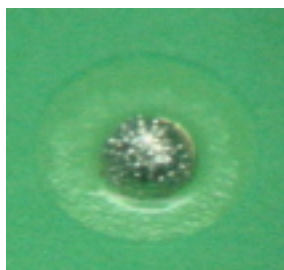


3) Super fine pattern solderability

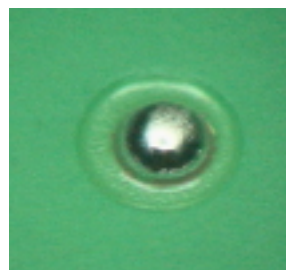
As the pattern gets smaller (such as 0.3mm diameter pads for CSP), the relative surface area of the solder paste deposit to its mass gets larger.

When lead free solder paste deposits are exposed during the reflow process, (since much higher temperatures are required to melt lead free solder than conventional Sn/Pb) solder may not melt completely and leave unmolten solder particles on the joint surface as if the flux medium is not heat resistant enough and/or not strong enough to remove oxide film that forms during reflow.

Koki S3X58-M405 is formulated with both high temperature resistant and powerful flux systems and offers perfect melting and wetting with super fine application.



Bad soldering



Perfect melting

4) Low voiding

Due to poor wetting performance and high surface tension, SnAgCu solder paste tends to cause more voiding than Sn/Pb solder paste. (One of most difficult problems to solve!)

Koki S3X58-M405 has drastically reduced voiding by the employment of a special technique in flux chemistry.

*See 32 page Technical Information.