

WHITE PAPER

SOLDER PASTE SOLUTIONS FOR PRINTED CIRCUIT BOARDS

Solder paste is a crucial component of the printed circuit board (PCB) assembly process, connecting surface mount components to pads on the board. However, it can be an expensive and temperamental process.

Disadvantages of Solder Pastes for PCBs

- Limited shelf life
- Limited open time
- High cost due to expensive metal alloys
- Complicated scrapping due to hazmat disposal requirements
- Poor quality or improper use can lead to reduced abandonment time on the production line

Without a high-performing paste, manufacturing lines can be completely shut down.

Finding a Temperature-Stable Solder Paste

A Midwest electronic manufacturing services company was experiencing some of these issues with their solder paste. They reached out to Ellsworth Adhesives Engineering Sales Representative Eric Traxler to assist in finding a new paste to solve these issues. Eric's knowledge and relationships with specialty chemical manufacturers led him to suggest Henkel LOCTITE GC 10 solder paste, due to its temperature stability and long abandonment time.

Creating a Custom Formulation

After testing, GC 10 still wasn't exactly what the manufacturer was looking for. Eric connected with Henkel and after a few months of custom formulation and testing, they developed a temperature-stable solder paste with an extended abandonment times of 48 to 72 hours.

Results were seen immediately including:

- Reduced scrap due to the extended time interval
- Reduced scrap and capital outlay due to the ability to reuse paste until it is completely consumed
- 40% reduction in solder paste usage, down to 80 to 110 jars per month
- Better control of production volumes

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With 70+ experienced engineering sales representatives in North America and 200+ globally, Ellsworth Adhesives has the knowledge to provide complete specialty chemical solutions across multiple industries.

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ePlus INVENTORY SOLUTIONS



To make sure the manufacturer never runs out of solder paste, Eric integrated the Ellsworth Adhesives ePlus Inventory Solutions program at their facility. ePlus is web-based inventory management software that automatically orders more product when it reaches a specific inventory level using a barcode scanning system. Users can set their own min/max levels on products and track inventory using custom reporting and real-time information, further reducing downtime and maintaining production volumes.