GENERAL SOLDER PASTE HANDLING GUIDELINES

Asia Only

DESCRIPTION

Below are the general guidelines to be used for handling ALPHA® Solder Pastes. The product Technical Bulletin (TB) should always be referred to for verification of any specific recommendations or conditions.

SHIPPING

- ALPHA solder paste products are engineered to be shipped between 0 to 29 °C (32 to 84 °F). Differences in local packaging suppliers warrant multiple packaging and shipping techniques to maintain this specification.
- Our distributor partners take active responsibility during final transport and delivery to our customers for maintaining the integrity of ALPHA soldering materials. During shipment, every care should be taken to use completely frozen gel packs together with solder paste in thermally controlled boxes to maintain paste integrity.

STORAGE

- Long term storage of solder paste is best achieved by refrigeration 0 to 10 °C (32 to 50 °F). The material should be placed in a storage area designed to maintain this temperature range (refrigerator or cold room) immediately upon receipt.
- Typical no-clean solder paste shelf life is 6 months. Water-soluble paste ranges from 3-6 months in a refrigerated environment. Reference product TB for exceptions. Please note shelf life is determined from the date of manufacturing.
- Cartridges are best stored vertically, tip down. If stored horizontally, the best practice is to turn cartridges 180° once every week.
- Solder paste should never be stored at room temperature 19 to 25 °C (66 to 77 °F) for prolonged periods. Room temperature stability is intended to provide manufacturing flexibility after storing the product. The typical room-temperature shelf life of an unopened paste is 2 weeks. Please refer to the specific TB for any exceptions to this recommendation.
- Exposure to a temperature above 29 °C (84 °F) will decrease the useful life of paste, meaning shorten its shelf life.

PREPARATION

- Paste should always be used on a First In First Out (FIFO) basis. To maintain optimum performance paste should not be stored outside the refrigerator any longer than necessary (never more than 4 days).
- Solder paste should be allowed to reach room temperature, 19 to 25 °C (66 to 77 °F), without forced heating or machine mixer. We recommend a typical period of 3 to 4 hours out of refrigeration, depending on packaging size. The specified viscosity of each paste is based on measurement at 25 °C (77 °F).
- Best practices for solder past printing are to maintain the temperature inside the printer between 22 to 29 °C (72 to 84 °F), 40 to 60% RH. Please consult the product TB for pastes that may operate outside of this window.

USAGE

- For jar packaging, manually stir the solder paste with spatula for 30 to 60 seconds to ensure paste homogeneity. Rotating/centrifugal force mixing equipment is not recommended. If a rotating/centrifugal force mixing equipment is used, a maximum time of 1 minute at 300 RPM is recommended.
- Apply an even paste bead on the stencil over the length of the squeegee with a diameter of approximately 12 mm (1/2 in). Replenish when paste bead is <12 mm (1/2 in) and replace the material when exceeded stencil life or has been exposed to high temperatures inside the printer >29 °C (84 °F). If the solder paste is designed for printing at temperatures over 29 °C (84 °F)., it will be indicated on the technical bulletin.
- Refer to product technical bulletin for room temperature stability life.

Unopened Paste Jars

- Unopened paste jars that have been exposed to 25 °C (77 °F) for 4 days may be returned to the refrigerator to stop further degradation of the product and can be expected to perform per the product technical bulletin.
- Unopened paste jars are stable at room temperature for a maximum of 2 weeks. Room temperature stability is intended to provide manufacturing flexibility after storing the product. Exceeding 2 weeks of room temperature storage will compromise the performance of the solder paste during printing. Please refer to the specific TB for any exceptions to this recommendation.
- If the paste has been at room temperature for 2 weeks, the paste should be used immediately or dispose of the paste.

Opened Jars but Unused Paste

- Opened jars may pick up moisture in the solder paste and are subjected to condensation when refrigerated.
- Do not return jars that were already opened to refrigeration.
- If a jar is opened and unused, return the lid to the jar, keep the jar at room temperature, and use the paste within its 2 week room temperature shelf life.

Opened Jars and Used Paste

- This refers to paste on stencil.
- Do not remove the paste from the stencil and mix with unused paste in a jar. This will alter the rheology and possibly the moisture content of the unused paste and, potentially, negatively affect paste performance.
- Failure to follow these guidelines will result in reduced shelf life and diminished product performance and may make the product unsuitable for use.
- Any used paste on stencil should be put in an empty and clean jar and stored at room temperature.
- Once applied to the stencil, no-clean and water soluble pastes are to be consumed within the stencil life, typically 8 hours.

General

- Always dispose of any unused solder paste following local environmental legislation.
- Always reference the technical bulletin of the specific product before use. Information presented in a product technical bulletin supersedes the information contained in this Reference Bulletin.

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