

Handling Guidelines Temperature Stable Solder Paste

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HANDLING

Storage: It is recommended that the solder paste be stored at temperatures below 26.5°C. Storage below this temperature down to a temperature of –20°C will have no negative effect on the material. Storage at temperatures above 26.5°C may reduce the storage stability of the material. Storage above 40°C should be checked with data sheet and or Henkel representative. Exposure for one to seven days (transport time) up to 40°C will have no negative impact to material shelf-life.

Before Use: If the solder paste is stored at room temperature (23.5-26.5°C), it can be used straight away without any pause. If stored at temperatures above 15°C, it can be used within one hour of introduction to production area.

If stored below 10°C, it must be allowed to return to room temperature before opening and use. Failure to do this may result in condensation forming on the paste. This will adversely affect the performance during printing and/or reflow. Always allow refrigerated paste packaged in 500g jars at least four hours to return to room temperature before use.

Working Environment: The solder paste performs best when used in a controlled environment. Maintaining an ambient temperature of between 23 and 30°C at a relative humidity of 30-60% will ensure consistent performance and maximum life of the paste.

Stirring: To restore fresh solder paste to its specified rheology, it can be stirred gently for 1-2 minutes before being applied to the printer. Always use a non-metallic or round edged spatula to avoid accidentally scratching particles off the inside of the container. Solder paste dispensed from a cartridge does not require stirring as the rheology is restored during the dispensing process.

Thinning: Adding thinners cannot restore solder paste. The addition of any such material to the paste will alter the rheology and the paste will be damaged. If the paste fails to perform to the specifications, then it has been damaged and should be disposed of.

Paste Life: As a general rule, solder paste that has been in use for more than 8 hours should be disposed of. However, if required, paste, which that has been on the printer, can be stored at room temperature for up to 72 hours before being re-

used. Always store used paste in a separate container. Do not mix fresh paste with used paste unless adding more to the printer itself. Paste stored in this way should be tested to meet the process requirements before re-use.

To prevent contamination of unused product, do not return any material to its original container.

A simple solder balling test can quickly determine the condition of the solder paste after prolonged use. Simply print a small disk of paste (around 4-5mm diameters) onto a non-wettable substrate and re-flow as normal. A single solder ball in a clear pool of residue indicates good coalescing ability. Large numbers of solder balls remaining in the flux residue pool could be an indication of poor coalescing ability and the paste may be unfit for use.

Disposal: Used solder paste should be stored in a sealed container and disposed of in accordance with local authority requirements, refer to Material Safety Data Sheet (MSDS).

Cleaning: No-clean solder paste can be cleaned using solvent type cleaners. For water-soluble type, di-ionised water is the cleaning medium recommended. It is recommended that all equipment is cleaned and dried thoroughly immediately after use. For best results, scrubbing in the solution by either ultrasonic action or brush will ensure all solder particles are completely removed.

SHIPPING

Pre-shipment storage: Paste is refrigerated between 5-10°C for a minimum of 12 hours prior to shipment. All products are packed in standard cases. Syringes and cartridges to be packed tip down to avoid separation.

For shipments likely to take more than 7 days and exceed 40°C the solder paste can be packed in polystyrene boxes with cold packs.

Frozen shipment is permitted.

Shipping method: Unless specifically requested, all material is shipped on overnight service in domestic market and by courier for international market in an unrefrigerated state.

Shipping temperatures: In an uncontrolled external environment, the temperature should not exceed 40°C.

RECEIVING

Goods inwards temperature: Should not exceed 30°C

Time to transfer to controlled storage: Immediately on receipt to a cool area for storage.

STORAGE ON SITE

Storage: Jars and cartridges to be stored tip down to avoid separation.

Segregation: Product type/batch numbers should be stored together to prevent poor handling.

Storage temperature: recommended 26.5°C or below

GENERAL INFORMATION

For safe handling information, consult the Material Safety Data Sheet (MSDS).

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