

ALPHA[®] RMA390D3K

Leaded Solder Paste

DESCRIPTION

ALPHA RMA390D3K is a rosin based solder paste designed for surface mount processes like stencil printing, dispensing and other demanding electronics assembly applications where post reflow cleaning is not required. Because of its unique activator package and other special additives, **ALPHA RMA390D3K** is suitable to remain on the circuit board without cleaning.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES AND BENEFITS

- Significantly longer intervals between solder paste application and component assembly
- Longer service life on screen or stencil printers compared to ALPHA RMA 390D3, consistent print results for longer periods.
- Increased adhesiveness for optimal tack of components after assembly.
- Long shelf life, 6 months with grain size type 2, 4 months with grain size type 3, when stored between 5 °C and 18 °C.
- Compatible with all reflow systems.
- In addition, solder spattering

APPLICATION GUIDELINES

The heat-resistant rosin as the basis of the flux is not charred until approximately 375 °C is reached. This allows a wide range of alloys, including high lead-content solders to be used. The after soldering cleaning is still easy to do.

The composition of the solder paste leads to contour-stable printed images that do not dissolve. The images remain sticky for 18 hours after printing, cooled for up to a week for fine print images, metal powder with particle size 3 (20 to 45 μ) is available.

The flux activated is type RMA QQS-571 and it is especially suitable for SMD-Technology on ceramic substrates or printed circuits.

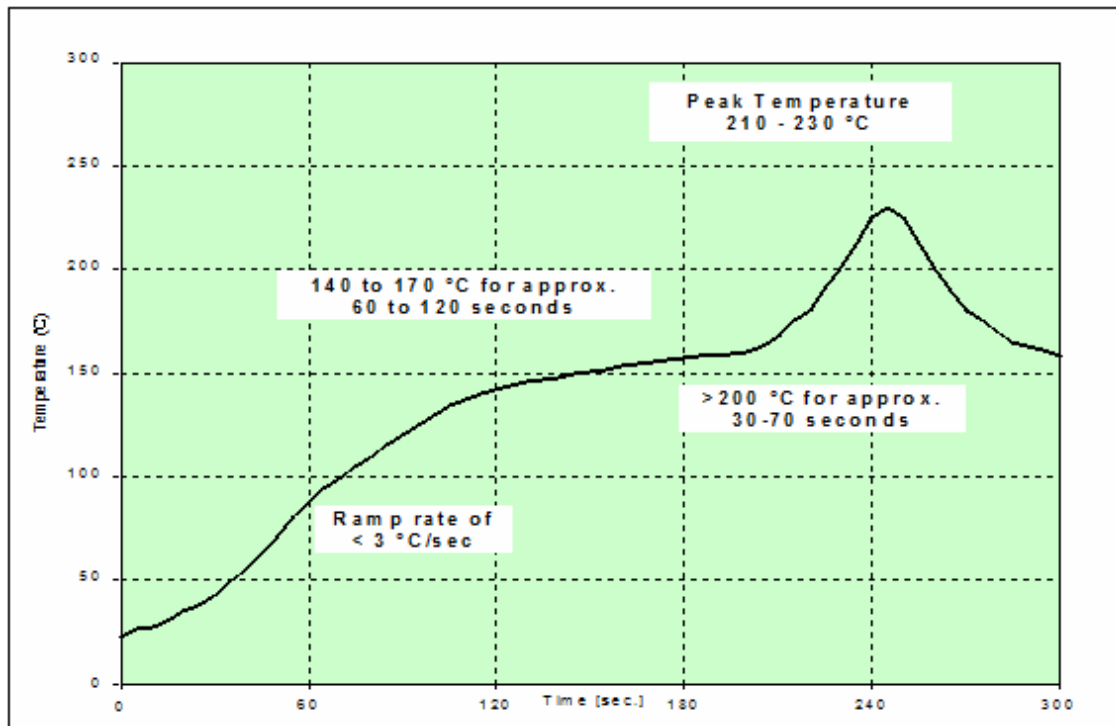
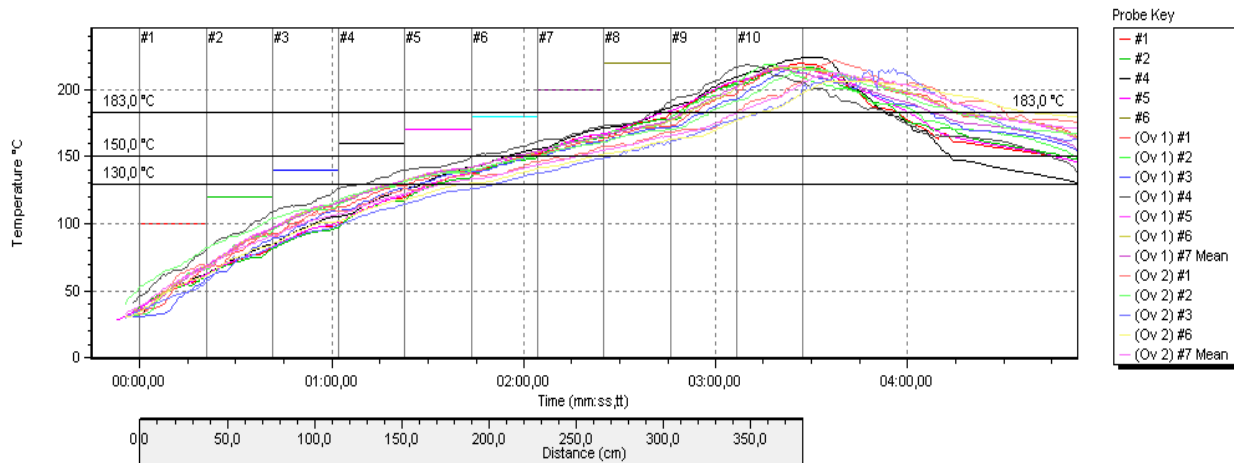
The residues are non-corrosive and non-conductive, according to DIN 32 513, and can therefore remain on the solder joint.

PROCESSING GUIDELINES

Storage & Handling	Printing	Reflow	Cleaning
<p>For optimum stability during storage, store in a cool place between 5 °C and 18 °C</p> <p>Shelf life of cooled stored paste is 6 months for type 2 and 4 months for type 3.</p> <p>When cooled stored, warm-up of paste container to room temperature for up to 8 hours. Paste must be ≥18 °C before processing. Verify paste temperature with a thermometer to ensure paste is at 18 °C or greater before setup</p> <p>The time required for the paste to reach ambient temperature depends on the ambient conditions (air conditioning and temperature)</p> <p>Do not remove worked paste from stencil and mix with unused paste in jar. This will alter rheology of unused paste</p>	<p>Stencil: Recommend ALPHA Laser CUT or ALPHA FORM stencils @ 150 to 200 µm thick for 0.5 to 0.64 pitch. Stencil design is subject to many process variables</p> <p>Squeegee: Metal or polyurethane blades (90 Shore) are recommended</p> <p>Pressure: 0.18 to 0.28 kg per cm of squeegee length.</p> <p>Speed: 25 to 65 mm/sec.</p> <p>Paste Roll: 1.5 to 2.0 cm diameter and make additions when roll reaches 1 cm diameter. Maximum roll size will depend upon blade type.</p>	<p>Induction, IR, or combined ovens</p> <p>Atmosphere: Clean-dry air or nitrogen atmosphere.</p> <p>Profile: (62Sn36Pb2Ag) Reflow to Figure 1 & 2 for typical reflow profiles</p> <p>NOTE: The processing guidelines recommended and typical reflow profiles presented were tested in the lab with acceptable performance</p>	<p>ALPHA RMA390D3K residue is designed to remain on the board after reflow.</p> <p>Misprints and soft flux residues remaining after rework may be removed with ALPHA Electronic Cleaners Bioact™ SC-10E & SC-22 and Hydrex™ XC Aqueous cleaners available from ALPHA Assembly Solutions</p>

REFLOW PROFILES

Figure 1 and 2: Typical SnPb Alloy Reflow Profiles



AVAILABILITY

62Sn/36Pb/2Ag	RMA 390D3K - 89-3-75 in 500g jars	(fine pitch)
62Sn/36Pb/2Ag	RMA 390D3K - 89-3-75 in 700g cartridges	(fine pitch)

RECYCLING SERVICES

We provide safe and efficient recycling services to help companies meet their environmental and legislative requirements and at the same time, maximize the value of their waste streams.

Our service collects solder dross, solder scrap, and various forms of solder paste waste. Please contact your local sales representative for recycling capabilities in your area or [link here](#).



SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available at MacdermidAlpha.com/assembly-solutions/knowledge-base.**

CONTACT INFORMATION

To confirm this document is the most recent version, please contact
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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE . Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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