

Micromax™ 4906

Electronic Inks & Pastes

PRODUCT DESCRIPTION

Ag Lead MLC Termination Composition

Micromax™ 4906 is a solderable, high adhesion Ag termination for lead attachment to multilayer capacitors.

This product is compatible with low, mid and high firing MLC dielectrics. Micromax™ 4906 was designed to achieve high lead adhesion while minimizing Ag usage.

This product can be used in radial or axial configurations using conformally coated or molded coating.

Product benefits

- Lead, Cadmium and Phthalate free
- Excellent cosmetics
- Good leaded adhesion

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

PRODUCT INFORMATION

General Properties	Value Unit
Application	Surface mount termination
Solvent or thinner	Micromax™ 8218
Solid content	80.5 to 81.5 %

TECHNICAL DATA

Rheological Properties	Value Unit
Viscosity ¹	18 to 25 Pa.s

Storage and Stability	Value Unit
Shelf life ²	6 months

¹Brookfield LVT, #4, 12 rpm, 25°C

²in unopened containers, from date of shipment, stable environment at room temperature between 5°C - 30°C

PROCESSING GUIDELINES

Application

Micromax™ 4906 termination composition should be thoroughly mixed before use. This is best achieved by slow, gentle hand stirring with a clean, burr-free spatula (flexible plastic or stainless steel) for 1-2 minutes. Applications should be carried out in a clean, well-ventilated area.

Micromax™ 4906 is optimized for application using a roller applicator although dipping equipment can be used. A minimum band width of 250µm is recommended. The composition should be applied on the temperature range 23-28°C. Operating outside of this range can cause poor cosmetic and coverage due to temperature-viscosity effects. The drying characteristics of the composition permits use over a 4-hour period at room temperature.

Product is suitable for double dipping if improved solder leach resistance is needed.

Substrate

Ceramic Capacitor

Thinning

Micromax™ 4906 termination composition is optimized for dipping and thinning is not normally required. Micromax™ thinner 8218 may be used sparingly for slight adjustments to viscosity or to replace evaporation losses. However, the use of too much thinner or the use of a non-recommended thinner may affect the rheological behavior of the material and its dipping characteristics.

Drying

200°C peak for 15 minute cycle on Palomar belt dryer.

Firing

850°C for 5-10 minutes at peak, 40 minute cycle.

Care must be taken to ensure that any gases/vapors from other chemicals/materials (e.g. halogenated solvents) do not enter the furnace muffle. It is also essential that the air supply to the furnace is clean, dry and free of contaminations. Air flow and extraction rates should be optimized to ensure that oxidizing conditions exist within the muffle, and that no furnace exhaust gases enter the room. Micromax™ 4906 termination composition is fired on a 40 minute firing cycle to a peak of 850°C held for 6 minutes. Variations in the peak firing temperature and/or time at the peak temperature may result in variations in the final fired properties.

Properties

All values reported here are results of experiments in our laboratories intended to illustrate product performance potential with a given experimental design. They are not intended to represent the product's specifications.

Storage and shelf life

Containers should be stored, tightly sealed, in a clean, stable environment at room temperature between 5°C - 30°C. Shelf life of material in unopened containers is 6 months from date of shipment. Some settling of solids may occur and compositions should be thoroughly mixed prior to use.

Storage conditions on the product data sheets are intended to represent long-term material storage recommendations and not a shipping or temperature-at-receipt requirement.

Transportation: Under normal shipping conditions, without temperature control, Micromax™ products are not expected to exhibit a change in quality or fitness for use. Should extraordinary events result in extended transportation periods, Micromax™ recommends customers confirm products remain suitable for the intended application.

Safety and handling

For safety and handling information pertaining to this product, read Safety Data Sheet (SDS).

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.

WASTE TREATMENT

Prior to using any recommendations or suggestions for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedence.

CONTACT INFORMATION

www.macdermidalpha.com

North America	Europe	Asia
470 Research Drive Wilmington, DE, USA 855.622.7813	Bristol & Bath Science Park Dirac Crescent, Emersons Green, Bristol, BS16 7FR, United Kingdom 44.117.4769148	No. 45 Hsing-Point Road Taoyuan City, 330457 Taiwan 886.3.3773588

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

DISCLAIMER: All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. No statement or recommendation shall constitute a representation unless set forth in an agreement signed by officers of seller and manufacturer. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY IS MADE. The following warranty is made in lieu of such warranties and all other warranties, express, implied, or statutory. Products are warranted to be free from defects in material and workmanship at the time sold. The sole obligation of seller and manufacturer under this warranty shall be to replace any noncompliant product at the time sold. Under no circumstances shall manufacturer or seller be liable for any loss, damage or expense, direct, indirect, incidental or consequential, arising out of the inability to use the product. Notwithstanding the foregoing, if products are supplied in response to a customer request that specifies operating parameters beyond those stated above, or if products are used under conditions exceeding said parameters, the customer by acceptance or use thereof assumes all risk of product failure and of all direct, indirect, incidental and consequential damages that may result from use of the products under such conditions, and agrees to exonerate, indemnify, defend and hold harmless MacDermid, Incorporated and its affiliates therefrom. No suggestion for product use nor anything contained herein shall be construed as a recommendation to use any product in a manner that infringes any patent or other intellectual property rights, and seller and manufacturer assume no responsibility or liability for any such infringement.

© 2026 MacDermid, Inc. and its group of companies. All rights reserved. "(R)" and "TM" are registered trademarks or trademarks of MacDermid, Inc. and its group of companies in the United States and/or other countries.