

ALPHA[®] HiTech[®] CU32-380

Low Viscosity Underfill

DESCRIPTION

ALPHA HiTech CU32-380 is a one-component capillary underfill designed for the protection of assembled chip packages onto printed circuit boards.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES AND BENEFITS


It provides the user with a balanced set of the following features and benefits:

- Low viscosity, enabling fast and efficient flow properties
- Low moisture absorption
- Releases stress over a large area, primary stress is CTE mismatch between component and board
- Excellent resistance to impact forces; No impact bend failure on boards after 10,000 cycles
- Halogen-free
- Complies with RoHS Directive 2011/65/EU

TECHNICAL DATA

Category	Specification
Typical Uncured Material Properties	
Appearance	Black
Viscosity @ 25 °C (RVDV-II Brookfield #4 @20rpm, cP)	300 to 800
Flashpoint, °C	>200
Pot Life @ 25 °C, days	3
Shelf Life at ≤ -20 °C, months	6
Available Packaging	10cc, 30cc syringes
Typical Cured Materials Properties	
Glass Transition (T _g), °C via TMA	89 ± 5
CTE (α ₁), <T _g , ppm	57 ± 10
CTE (α ₂), >T _g , ppm	199 ± 20
Hardness (Shore D)	80 to 90
Storage Modulus @25 °C (Gpa via DMA)	1.27

PROCESSING GUIDELINES

Storage	Thawing	Application	Curing
<ol style="list-style-type: none"> 1. Store at <-20 °C to guarantee product stability. 2. Upright Position, tip facing the bottom 	<ol style="list-style-type: none"> 1. Remove the syringe from the freezer. 2. Set aside at room temperature for 2 hours. 3. Do not open the cap before the product is sufficiently thawed. 4. Product should not be refrozen after thawed. 5. To prevent contamination of unused product, do not return any material to its original container. 	<p>ALPHA HiTech CU32-380 can be effectively dispensed at room temperature condition.</p>	<p>For full property development, cure at 130 °C and hold for a minimum of 8 minutes (convection oven).</p>

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.**

CONTACT INFORMATION

www.macdermidalpha.com

North America 140 Centennial Avenue Piscataway, NJ 08854 1.800.367.5460	Europe Unit 2, Genesis Business Park Albert Drive Woking, Surrey, GU21 5RW, UK 44.01483.758400	Asia 8/F., Two Sky Parc 51 Hung To Road Kwun Tong, Kowloon, Hong Kong, SAR China 852.2500.5365
-----------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------

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.

© 2019 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.