

BOND® 3141**Non-conductive Die Attach Adhesive for LED (VS. Ker3000-M2)**

| 產品特色 | 產品優勢 |
|-------------|------------------------------------|
| 單液型 | 無需攪拌 (容易加工) |
| 在光照及高溫下不易黃變 | 膠不易坍塌及擴散 |
| 可作業時間長 | 操作性佳 |
| 中等黏度 | 適用製程如 pin transfer 及 dispensing 等. |

產品描述:

Bond® 3141為單液型，乳白色半透明Hybrid Chemistry接著劑 (為複合材料,非Epoxy)，專用於各種光電元件如: LED之黏晶膠.

應用領域:

Bond® 3141 為Chip LED, GaN LED chip, LED lamp bonding 等應用之黏晶膠，可用於 pin transfer and dispensing等製程.

| UNCURED PROPERTIES | | TEST DESCRIPTION |
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| 外觀 | 乳白色半透明 | |
| 黏度 @ 25°C | 20000cps | Brookfield RVDV-II@ 5rpm |
| 搖變指數 @ 25°C | 1.5 | Brookfield RVDV-II@ 5rpm Visc. @ 0.5rpm/Visc @ 5rpm |
| 含水率 | < 0.7 % | 25°C/24hours |
| 操作時間@ 25°C | 24hrs | 黏度增加 25%@ 5rpm |
| 保存時間@ -20°C | 6months | |
| 保存時間@ -40°C | 12months | |
| 光透過率 Light transmissivity 400 nm/1 mm | 87% | |
| 折射率 Refractive Index | 1.5 | |
| CURE CONDITION | | TEST DESCRIPTION |
| 標準硬化條件(烘箱烘烤) | | 100°C/1h + 150°C/2h or 100°C/1h +160°C/2h |
| MECHANICAL PROPERTIES-POST CURE | | TEST DESCRIPTION |
| Die Shear Strength @ 25°C >12 Kg/die | | 2mmx2mm (80milx80 mil) 銀支架 |
| PHYSIOCHEMICAL PROPERTIES-POST CURE | | TEST DESCRIPTION |
| Weight Loss on Cure@ 200°C | <1 % | Thermo gravimetric Analysis |

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| 線膨張係數 (25-150°C) Cohesion of Thermal Expansion | 150 ppm/°C | Coefficient of Thermal Expansion |
| 熱傳導率 Thermal conductivity | 0.2 W/m · K | |
| Glass Transition Temperature | 130°C | DSC |
| 體積抵抗率 Volume resistivity | 100 TΩ·m | |
| 絕緣破壞強度 Dielectric breakdown at 1mm | 25KV | |

GENERAL INFORMATION

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

THAWING:

1. Allow container to reach room temperature before use.
2. After removing from the freezer, set the syringes to stand vertically while thawing.
3. DO NOT open the container before contents reach 25°C temperature.
Any moisture that collects on the thawed container should be removed prior to opening the container.
4. DO NOT re-freeze. Once thawed to -20°C, the adhesive should not be re-frozen.

DIRECTIONS FOR USE

1. Thawed adhesive should be immediately placed on dispense equipment for use.
2. If the adhesive is transferred to a final dispensing reservoir, care must be exercised to avoid entrapment of contaminants and/or air into the adhesive.
3. Adhesive must be completely used within the product's recommended work life.
4. Apply enough adhesive to achieve a 25 to 50 µm wet bondline thickness, dispensed with approximately 25 to 50 % filleting on all sides of the die.
5. Alternate dispense amounts may be used depending on the application requirements.
6. Star or crossed shaped dispense patterns will yield fewer bondline voids than the matrix style of dispense pattern.

APPLICATION GUIDELINES**UNPACKING**

Transfer the syringes from the dry ice to a -40°C freezer without ANY delays. Freeze-thaw voids will form in the syringes if the syringes are repeatedly thawed and refrozen.

STORAGE

This product must be stored at -40°C. The shelf life of the material is only valid when the material has been stored at the specified storage condition. Incorrect storage conditions will degrade the performance of the material in both handling (e.g. dispensing or screen printing) and final cured properties.

THAWING

Allow the container to reach room temperature before use. After removing from the freezer, set the syringes to stand vertically while thawing.

DO NOT open the container before contents reach ambient temperature. Any moisture that collects on the thawed container should be removed prior to opening the container.