

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
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

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.