

Website: <u>www.feedpool.com</u>

# **Technical Data Sheet**

# FeedBond<sup>®</sup> EP-3600-H2

# Non-conductive Die Attach Adhesive

## **Description:**

**FeedBond®EP-3600-H2** one-component, translucent epoxy adhesive is developed for optoelectronic packaging application. This adhesive can be used for small die sized chip LED and can be applied to automatic die attach equipment.

## **Application Package:**

LED Chip, GaN Blue and white LED Chip bonding etc.

## **Characteristics:**

- No yellowing due to heat and light
- Middle viscosity that is adaptable to conventional processing methods such as pin transfer and dispensing.

| UNCURED PROPERTIES                    |                  | TEST DESCRIPTION                                       | TEST METHOD        |
|---------------------------------------|------------------|--|--------------------|
| Appearance                            | Translucent      |  |                    |
| Viscosity @ 25°C                      | 24000cps         | Brookfield DV-III/CP-51 @ 5rpm                         | FT-P006            |
| Thixotropic Index<br>@ 25°C           | 1.5              | Brookfield DV-III/CP-51<br>Visc. @ 0.5rpm/Visc. @ 5rpm | FT-P008            |
| Grind                                 | < 10µm           | Grind meter  | FT-P026            |
| Work Life @ 25°C<br>Shelf Life@ -40°C | 48hrs<br>6months | 25% increase in visc. @ 5rpm                           | FT-P024<br>FT-P018 |
| CURE CONDITION                        |                  | TEST DESCRIPTION                                       | TEST METHOD        |
| Standard Cure Conditi                 | on               | 60 minutes in oven @160°C                              |                    |

p.s. The tables shown above are typical values only. If you need to write a specification, please request our current Standard Release Specification.



| PHYSIOCHEMICAL PROPERTIES               |           | TEST DESCRIPTION                      | TEST METHOD |
|---|-----------|---------------------------------------|-------------|
| Hardness                                | 85        | Shore D                               | FT-9037     |
| Glass Transition Temperature (Tg) 191°C |           | DMA 3 Point Bending Mode              | FT-M014     |
| Coefficient of Thermal Expansion        |           |                                       |             |
| Below Tg(a1)                            | 51ppm/°C  | TMA Expansion Mode                    | FT-M016     |
| Above Tg(α2)                            | 108ppm/°C |                                       |             |
| Dynamic Tensile Modulus                 |           |                                       |             |
| @25°C                                   | 2399MPa   | Dynamic Mechanical Thermal            |             |
| @150°C                                  | 1184MPa   | Analysis using <1.6 mm thick specimen | FT-M019A    |
| @250°C                                  | 305MPa    | 1                                     |             |
| MECHANICAL PROPERTIES-<br>POST CURE     |           | TEST DESCRIPTION                      | TEST METHOD |
| Die Shear Strength @ 25°C >50 g/die     |           | 3 × 5mil die / PLCC                   | FT-M012     |

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### Instruction

This product is easy to hindered, resulting inhibit the cure. Avoid the following materials: ①Containing Amin type, Thiol type, acid anhydride. ② Alcohol, Ketone, Polar solvent (DME, NMP). ③The sulfur-containing surface treatment agent.

### Thawing

Place the container to stand vertically for 60mins.**DO NOT** open the container before adhesive reaches ambient temperature to prevent the moisture condensation. Any moisture that collects on the thawed container should be removed prior to use. Adhesives that appear to have separated should not be used.

### Storage

Adhesive should be stored @ -40°C. The shelf life of the material is only valid when the material has been stored at the correct storage condition.

| Storage Temp. | -42°C ~- 35°C | <b>-22</b> °C ~-18°C | 0°C~5°C | <b>18°C∼28°</b> C |
|---------------|---------------|----------------------|---------|-------------------|
| Shelf Life    | 6months       | 6months              | 3months | 2 days            |

### Availability

FeedBond<sup>®</sup> adhesives are packaged in syringes or pots per customer specification. For the details, please contact our Customer Service or sales department.