

Technical Data Sheet

FeedBond[®] EP-1600-S3A

Non-conductive Die Attach Adhesive

Description:

FeedBond[®]EP-1600-S3A is a one-component adhesive, colorless transparent silicone mixed with epoxy resin, which is specially used for the viscous crystalline adhesive of various optoelectronic components (such as LED).

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	18000cps	Brookfield DV-III/CP-51 @ 5rpm	FT-P006
Thixotropic Index @ 25°C	2.1	Brookfield DV-III/CP-51 Visc. @ 0.5rpm/Visc. @ 5rpm	FT-P008
Grind	< 10μm	Grind meter	FT-P026
Work Life @ 25°C	48hrs	25% increase in visc. @ 5rpm	FT-P024
Shelf Life@ -20°C	6months		FT-P018
CURE CONDITION		TEST DESCRIPTION	TEST METHOD
Standard Cure Condition		60 minutes in oven @160°C	

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PHYSIOCHEMICAL PROPERTIES	TEST DESCRIPTION	TEST METHOD
Hardness 85	Durometer Shore D	FT-P037
Glass Transition Temperature (Tg) 125°C	DMA 3 Point Bending Mode	FT-M014
Coefficient of Thermal Expansion Below Tg(α_1) 55 ppm/°C Above Tg(α_2) 87ppm/°C	TMA Expansion Mode	FT-M016
Dynamic Tensile Modulus @25°C 3764MPa @150°C 1204MPa @250°C 1088MPa	Dynamic Mechanical Thermal Analysis using <1.6 mm thick specimen	FT-M019A
Thermal conductivity 0.22W/mK	Hot Disk	FT-P022
MECHANICAL PROPERTIES-POST CURE	TEST DESCRIPTION	TEST METHOD
Die Shear Strength @ 25°C >2.0 Kg/die @180°C > 1.0Kg/die	45mil × 45mil die on Ag Leadframe	FT-M012

Instruction

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.	-22°C~-18°C	0°C~5°C	18°C~28°C
Shelf Life	6months	3months	2 days

Availability

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