Technical Data Sheet

FeedBond® FP-5300TC-20A

Thermally and Electrically Conductive Die Attach Adhesive

Description:

FeedBond®FP-5300TC-20A single component, thermally and electrically conductive die attach adhesive is designed for thermal management application. This adhesive can be used for small die sized chip LED, IC etc. It also has a good workability in auto dispensing or stamping process.

Application Package:

Devices which need high thermal conductivity (Power Devices, RF ICs and LEDs)

Characteristics:

- A smooth, flowing and no string problem.
- low bleeding
- Middle viscosity, apply for use in automatic die attach equipment.
- At high temperature, still maintain fine adhesion and high heat conduction.

UNCURED PROPERTIES		**TEST DESCRIPTION**	**TEST METHOD**
Density	5.4 g/cc	Pycnometer	FT-P001
Appearance	Silver		
Viscosity @ 25℃	10,000cps	Brookfield DV-III/CP-51 @ 5rpm	FT-P006
Thixotropic Index @ 25℃	4.5	Brookfield DV-III/CP-51 Visc. @ 0.5rpm/Visc. @ 5rpm	FT-P008
Grind	< 25μm	Grind meter	FT-P026
Work Life @ 25℃	48hrs	25% increase in visc. @ 5rpm	FT-P024
Shelf Life@ -40℃	6 months		FT-P018
CURE CONDITION		**TEST DESCRIPTION**	**TEST METHOD**
Standard Cure Condition		90 minutes in oven @150℃ 60 minutes in oven @175℃	

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

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PHYSIOCHEMICAL PROPERTIES	**TEST DESCRIPTION**	**TEST METHOD**
Glass Transition Temperature (Tg) 81℃	DMA 3 Point Bending Mode	FT-M014
Coefficient of Thermal Expansion Below Tg(α1) 40 ppm/°C Above Tg(α2) 140 ppm/°C	TMA Expansion Mode	FT-M016
Dynamic Tensile Modulus @ -60°C 10035MPa @25°C 9058MPa @150°C 505MPa @250°C 376MPa	Dynamic Mechanical Thermal Analysis using <1.6 mm thick specimen	FT-M019
Weight loss <0.2% @200°C <1.0% @300°C	TGA	FT-P010
Volume resistivity <0.0005Ω · cm	4-point probe	FT-P017
Thermal conductivity 20W/mK	Hot Disk	FT-P022
MECHANICAL PROPERTIES-POST CURE	**TEST DESCRIPTION**	**TEST METHOD**
Die Shear Strength @ 25°C >5 Kg/die @260°C >1 Kg/die	80mil × 80mil die on Ag Leadframe	FT-M012

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Instruction

Thawing

Place the container to stand vertically for 60min. **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.

Availability

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