Technical Data Sheet

FeedBond® EP-6000-SHW5

Silicone Type Thermally Conductive Adhesive

Description:

FeedBond®EP-6000-SHW5 one-component, thermally curable, addition-curing silicone adhesive with high thermal conductivity is developed for optoelectronic packaging application.

This adhesive can be used for LED chip and can be applied to automatic equipment.

Application Package:

Adhesive optoelectronic packaging application

Characteristics:

- Silicone die-bond material with high thermal conductivity.
- 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	White	Visual	
Viscosity @ 25℃	15000cps	Brookfield DV-III/CP-51 @ 5rpm	FT-P006
Thixotropic Index @ 25℃	4.0	Brookfield DV-III/CP-51 Visc. @ 0.5rpm/Visc. @ 5rpm	FT-P008
Grind	< 20μm	Grind meter	FT-P026
Work Life @ 25℃	48hrs	25% increase in visc. @ 5rpm	FT-P024
Shelf Life@-10~0℃	6months		FT-P018
CURE CONDITION		**TEST DESCRIPTION**	**TEST METHOD**
Standard Cure Condition		120 minutes in oven @150℃	

Note: This table is only the test data of Feedpool laboratory, customers still need to do a complete verification test for the product before putting it into production.

FeedBond® EP-6000-SHW5

PHYSIOCHEMICAL PROPERTIES		TEST DESCRIPTION	TEST METHOD
Hardness Shore D	65	Durometer Shore D	FT-P037
Linear CTE	158ppm/℃	TMA Expansion Mode(25~150℃)	FT-M016
Thermal conductivity	0.8 W/mK	Hot Disk	FT-P022
Dielectric constant@25℃,1MHz		3.35	
Dissipation Factor@25℃,1MHz		0.01	
MECHANICAL PROPERTIES-POST CURE		**TEST DESCRIPTION**	**TEST METHOD**
Die Shear Strength @ 25℃	1.2 Kg/die	45mil × 45mil die on Ag Leadframe	FT-M012
Die Shear Strength @ 160℃	800g/die	45mil × 45mil die on Ag Leadframe	FT-M012
Die Shear Strength @ 260℃	600g/die	45mil × 45mil die on Ag Leadframe	FT-M012
Lap Shear Strength (AL-AL)	>40 Kgf/cm^2	attach area (1x2.5cm)	FT-M012

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Instruction

All surfaces must be clean and free of contaminants that will inhibit the cure of EP-6000-SHW5. Examples of inhibiting contaminants are sulfur containing materials, plasticizers, urethanes, amine containing materials and organometallic compounds – especially organotin compounds.

If a substrate's ability to inhibit cure is unknown, a small scale test should be run to determine compatibility.

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 @-10~0℃. 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.