Technical Data Sheet

FeedBond® FP-1725-B4

Snap Cure Conductive Silver Paste

Introduction:

FeedBond®FP-1725-B4 electrically conductive adhesive is designed for attaching small to medium size dies to silver and gold-plated leadframes, as well as on copper leadframes. FP-1725-B4 can be snap cured, hot plate cured or fast cured in oven. The strong die shear strength of FP-1725-B4 is suitable for attaching of small dies, and this good stress-absorbing for medium dies on leadfreams.

Characteristics:

- Snap cure, hot plate cure and oven cure
- Minimal bleeding and minimal volatiles
- Good bonding on silver-plated leadframe

UNCURED PROPERTIES		**TEST DESCRIPTION**	**TEST METHOD**
Density	3.3 g/cc	Pycnometer	FT-P001
Appearance	Silver		
Viscosity @ 25℃	9500 cps	Brookfield DV-Ⅲ/CP-51 @ 5rpm	FT-P006
Thixotropic Index @ 25℃	4.2	Brookfield DV-Ⅲ/CP-51 Visc. @ 0.5rpm/Visc. @ 5rpm	FT-P008
Grind	< 25 μm	Grind meter	FT-P026
Moisture Content	< 0.5 %	Moisture Titrator	FT-P002
Work Life @ 25℃	48 hrs	25% increase in visc. @ 5rpm	FT-P024
Shelf Life@ -40℃	6 months		FT-P018

CURE CONDITION	**TEST DESCRIPTION**
Recommended Cure Condition	1. Zone # : 1 2 3 4 5 6 7 2. Temp.(℃): 150 180 200 200 200 200 180 3. Total : 120 Sec. (12sec/zone and indexing time 3sec) 4. Hot N2 Gas : 240C (80 litre/min.) in a chamber.
Snap Cure Condition on hot plate	1min on hot plate @200℃ 2min on hot plate @175℃
Standard Cure Condition on oven	15min @150℃ 40min @120℃

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PHYSIOCHEMICAL PROPERTIES-POST CURE		TEST DESCRIPTION	TEST METHOD
Glass Transition Temperature (Tg)	120℃	DMA(TA) 3 Point Bending Mode	FT-M014A
Coefficient of Thermal Expansion		TMA Expansion Mode	FT-M016
Below Tg	66 ppm/℃		
Above Tg	224 ppm/℃		
Storage Modulus		Dynamic Mechanical Thermal Analysis(TA) using <1.6mm thick specimen	FT-M019A
@25℃	4927MPa		
@150℃	187MPa		
@250℃	89MPa		
Weight loss @300℃	<1%	Thermogravimetric Analysis	FT-P010
THERMAL ELECTRICAL PROPERTIES-POST CURE		**TEST DESCRIPTION**	**TEST METHOD**
Volume resistivity	0.0003Ω · cm	4-point probe	FT-P017
Thermal conductivity	2.5 W/mK	Hot Disk	FT-P022
MECHANICAL PROPERTIES-POST CURE		**TEST DESCRIPTION**	**TEST METHOD**
Die Shear Strength @ 25℃	10 kg/die	80mil × 80mil Si die on Ag LF Cure 120 sec on hot plate @200℃	FT-M012

Instruction

Thawing

Place the container to stand vertically for 30min ~90min.**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℃. 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.