

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 leadframes.

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
Appearance	Silver	Pycnometer Brookfield DV-III/CP-51 @ 5rpm Brookfield DV-III/CP-51 Visc. @ 0.5rpm/Visc. @ 5rpm Grind meter Moisture Titrator 25% increase in visc. @ 5rpm	FT-P001
Density	3.1 g/cc		FT-P006
Viscosity @ 25°C	8500 cps		FT-P008
Thixotropic Index @ 25°C	4.5		FT-P026
Grind	< 25µm		FT-P002
Moisture Content	< 0.5 %		FT-P024
Work Life @ 25°C	48 hrs		FT-P018
Shelf Life@ -40°C	6 months		
CURE CONDITION		TEST DESCRIPTION	
Recommended Cure Condition		1. Zone # : 1 2 3 4 5 6 7 2. Temp.(°C): 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°C 2min on hot plate @175°C	
Standard Cure Condition on oven		30(at least >15)min @150°C 60min @120°C	

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PHYSIOCHEMICAL PROPERTIES- POST CURE	TEST DESCRIPTION	TEST METHOD
Glass Transition Temperature (Tg) 120°C Coefficient of Thermal Expansion Below Tg 66 ppm/°C Above Tg 224 ppm/°C Storage Modulus @25°C 4927MPa @150°C 187MPa @250°C 89MPa	DMA(TA) 3 Point Bending Mode TMA Expansion Mode Dynamic Mechanical Thermal Analysis(TA) using <1.6mm thick specimen	FT-M014A FT-M016 FT-M019A
Weight loss @200°C 0.2% Weight loss @300°C 0.6%	Thermogravimetric Analysis	FT-P010
Ionic Content Cl- <20 ppm Na+ <10 ppm K+ <10ppm	Teflon flask, 20~40 mesh, 5g sample in 50g DI water, 24hr@100°C	FTC-021
THERMAL ELECTRICAL PROPERTIES- POST CURE	TEST DESCRIPTION	TEST METHOD
Volume resistivity <0.0005Ω · 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°C 8 kg/die	80mil × 80mil Si die on Ag/Cu LF Cure 120 sec on hot plate @200°C	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°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.