

Technical Data Sheet

FeedBond® FP-1725-B3-5

Snap Cure Conductive Silver Paste

Introduction:

FeedBond®FP-1725-B3-5 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-B3-5 can be snap cured, hot plate cured or fast cured in oven.

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		
Density	3.5 g/cc	Pycnometer	FT-P001
Viscosity @ 25°C	9500 cps	Brookfield DV-III/CP-51 @ 5rpm	FT-P006
Thixotropic Index	5.0	Brookfield DV-III/CP-51	FT-P008
@ 25°C		Visc. @ 0.5rpm/Visc. @ 5rpm	
Grind	< 25µm	Grind meter	FT-P026
Work Life @ 25°C	48hrs	25% increase in visc. @ 5rpm	FT-P024
Shelf Life@ -40°C	6 months		FT-P018
CURE CONDITION		TEST DESCRIPTION	TEST METHOD
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		2min on hot plate @175°C 5min on hot plate @150°C	
Standard Cure Condition in oven		20min @180°C or 30(at least >15)min @150°C or 60min @120°C	

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PHYSIOCHEMICAL PROPERTIES- POST CURE	TEST DESCRIPTION	TEST METHOD
Glass Transition Temperature (Tg) 94°C	DMA 3 Point Bending Mode	FT-M014
Coefficient of Thermal Expansion	TMA Expansion Mode	FT-M016
Below Tg(α_1) 49ppm/°C		
Above Tg(α_2) 209 ppm/°C		
Storage Modulus		FT-M019A
@25°C 6574MPa	Dynamic Mechanical Thermal	
@150°C 157MPa	Analysis using <1.6mm thick	
@250°C 127Mpa	specimen	
Weight loss @300°C <1%	Thermogravimetric Analysis	FT-P010
THERMAL ELECTRICAL PROPERTIES- POST CURE	TEST DESCRIPTION	TEST METHOD
Volume resistivity <0.0005Ω · cm	Cure 15min in oven plate @150°C 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

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

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.