

Technical Data Sheet

FeedBond® FP-1725-E4

Low cure temperature Conductive Adhesive

Introduction:

FeedBond®FP-1725-E4 is an electrically conductive adhesive. It is designed for low temperature curing or fast cured at high temperature in oven.

Characteristics:

- Low cure temperature
- One component
- Fast cured at high temperature
- Excellent flexibility
- Low viscosity, apply for use in automatic die attach equipment

UNCURED PROPERTIES		TEST DESCRIPTION	TEST METHOD
Appearance	Silver		
Viscosity @ 25°C	8000 cps	Brookfield DV-III/CP-51 @ 5rpm	FT-P006
Thixotropic Index @ 25°C	5.0	Brookfield DV-III/CP-51 Visc. @ 0.5rpm/Visc. @ 5rpm	FT-P008
Grind	< 25µm	Grind meter	FT-P026
Work Life @ 25°C	24 hrs	25% increase in visc. @ 5rpm	FT-P024
Shelf Life@ -40°C	6 months		FT-P018
CURE CONDITION		TEST DESCRIPTION	TEST METHOD
Standard Cure Condition in oven		60min @80°C	
		10min @100°C	
Alternate Cure Condition on hot plate		120sec @110°C	
Die Shear Strength @ 25°C	>500 g/die	45mil × 45mil Si die on Ag LF Cure 60min in oven @80°C	FT-M012
Die Shear Strength @ 25°C	>2.9 kg/die	2mm × 2mm Si die on Ag Cure 120sec on hot plate @110°C	FT-M012
Die Shear Strength @ 25°C	>2.2 kg/die	2mm × 2mm Si die on AU Cure 120sec on hot plate @110°C	FT-M012

FeedBond® FP-1725-E4

PHYSIOCHEMICAL PROPERTIES- POST CURE		TEST DESCRIPTION	TEST METHOD
Glass Transition Temperature (Tg)	80°C	DMA 3 Point Bending Mode	FT-M014
Hardness Shore D	78±3	Durometer Shore D	FT-P037
Coefficient of Thermal Expansion		TMA Expansion Mode	FT-M016
Below Tg(α_1)	41ppm/°C		
Above Tg(α_2)	111 ppm/°C		
Storage Modulus			
@-65°C	5848MPa	Dynamic Mechanical Thermal Analysis using <1.6mm thick specimen	FT-M019A
@25°C	4759MPa		
@150°C	133MPa		
@250°C	155MPa		
Weight loss @200°C	0.67%	Thermogravimetric Analysis	FT-P010
Weight loss @300°C	2.10%		
THERMAL ELECTRICAL PROPERTIES- POST CURE		TEST DESCRIPTION	TEST METHOD
Volume resistivity	<0.0005Ω · cm	Cure 60min in oven @80°C 4-point probe	FT-P017
Thermal conductivity	1.75W/mK	Hot Disk	FT-P022

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

This product is easy to hindered, resulting inhibit the cure. Avoid the following materials: ①Containing Amin type, Thiol type, acid anhydride. ② Alcohol, Ketone, Polar solvent (DME, NMP). ③The sulfur-containing surface treatment agent.

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 (-20°C or -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.