

Technical Data Sheet

FeedBond® FP-5023 Convention Cure Conductive Adhesive

Introduction:

FeedBond[®]*FP-5023* electrically conductive adhesive is designed for attaching small to medium size dies to silver and gold-plated leadframes, as well as on copper leadframes. The strong die shear strength of *FP-5023* is suitable for attaching of small to medium size dies.

Application Package:

TSOP,QFP and DIP etc

Characteristics:

- Minimal tailing and stringing
- Minimal bleeding
- Excellent bonding on variable substrates.

UNCLIDED BDODEDTIES		TEST DESCRIPTION	TEST
UNCUKED P	KOPERIIES	IEST DESCRIPTION	METHOD
Density	3.0g/cc	Pycnometer	FT-P001
Appearance	Silver		
Viscosity @ 25°C	9,000cps	Brookfield DV-III/CP-51 @ 5rpm	FT-P006
Thixotropic Index	4.9	Brookfield DV-III/CP-51	FT-P008
@ 25°C	4.8	Visc. @ 0.5rpm/Visc @ 5rpm	
Work Life @ 25°C	48 hours	25% increase in visc. @ 5rpm	FT-P024
Shelf Life@ -40°C	12 months		FT-P018
		TECT DESCRIPTION	TEST
	JNDITION	IEST DESCRIPTION	METHOD
Standard Cure Condition		20~30 minutes ramp to 150° C+60 minutes @ 150° C	
Alternate Cure Condition	n	20~30 minutes ramp to $175^{\circ}C + 30$ m	inutes @ 175°C
Weight loss on cure 3.5%			FT-P010
MECHANICAL PROPERTIES- POST CURE		TEST DESCRIPTION	TEST METHOD
Die Shear Strength @ 25°C 12.0 kg/die		2mm×2mm Si die on Ag/Cu LF	FT-M012
		(80mil×80 mil)	
Die Shear Strength @ 260°C 2.0 kg/die			
Die Shear Strength @ 26	50° C 2.0 kg/die	2mm×2mm Si die on Ag/Cu LF	FT-M012



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PHYSIOCHEMICAL PROPERTIES-		TEST DESCRIPTION	TEST
POST CURE			METHOD
Glass Transition Temperat	ure 89°C	DMA 3 Point Bending Mode	FT-M014
Coefficient of Thermal Expansion		TMA Expansion Mode	FT-M016
Below Tg	44 ppm/°C		
Above Tg	212 ppm/°C		
Dynamic Tensile Modulus		Dynamic Mechanical Thermal	
@ -60°C	4491 MPa		FT-M019
@25°C	4085 MPa	Analysis using <1.6 mm thick	
@150°C	162 MPa	specimen	
@250°C	178 MPa		
Weight loss@300°C	0.32%	TGA	FT-P010
Ionics			
Cl-	5 ppm	Teflon flask, 20~40 mesh, 5g	FTC-021
Na+	2 ppm	sample in 50g DI water,	
K+	Not detected	24H@100℃	
THERMAL ELECTRICAL PROPERTIES-		TEST DESCRIPTION	TEST
POST CURE			METHOD
Thermal Conductivity	3.1 W/m • K	HOT DISK Tester	FT-P022
Volume resistivity	0.0001ohm-cm	4-Point Probe	FT-P017

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.