Technical Data Sheet

FeedBond® FP-6100-HP240

Low temperature sintering silver paste

Description:

FeedBond® FP-6100-HP240 is a low temperature pressureless sintering silver paste with high thermal conductivity of 240W/m-K. It can be used in semiconductor packaging designs that require high electrical and thermal conductivity. For best performance, the wafers and substrates used must be gold or silver plated. It does not contain any resin components and uses pure metal bonding to significantly improve the thermal conductivity of the product.

Application：

- High power packaged products.
- Packaged products that work in high temperature environments.
- SIP/QFN/LGA/HBLED

Characteristics:

- High shear strength at high temperature, and high electrical conductivity.
- Suitable for stamping and dispensing processes
- Excellent thermal conductivity.
- Can be sintered at low temperature (200°C).

Specification	Value	Measure	Test Method
Appearance	Silver paste	Visual	-
Metal Alloy	Silver powder	-	-
Silver content	>95%		
Viscosity @ 25°C	8,000~12,000 cps	Brookfield CP-51 @ 5rpm	FT-P006
Thixotropic Index	4.5 ~ 7.5	Brookfield CP-51 Vis. @ 0.5rpm/5rpm	FT-P008
Paste density	6.3 g/cm^3	Pycnometer/Balance	FT-P001
Cure Condition* <2 x2 mm	20 min to 110°C and hold for 30-60 min; 30 min to 200°C and hold for 90min.	Heat Cure	-
Cure Condition* >2 x2 mm	20 min to 110°C and hold for60-90 min; 30 min to 200°C and hold for 120min.		

* The above sintering methods are only guidelines. Sintering conditions (time and temperature) may vary based on customer experience and application requirements. Customers can adjust it according to sintering equipment, oven load and actual oven temperature.

Specification	**Value**	**Measure**	**Test Method**
Thermal conductivity	240 W/mK	Hot Disk	FT-P022
Volume resistivity	$4*10^{-6}$ Ohm-cm	Four-point probe	FT-P017
DDS @260°C	>1.5 Kg-f	1mm*1mm AuSn/Ag	
Work Life @ 25°C	16hr	Viscosity increases 50% @ 5rpm	FT-P024
Shelf Life @ -40°C	6 months	-40°C	FT-P018

Instruction

Thawing

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

When receiving the product, please storage at low temperature（-20°C or -40°C）immediately. The shelf life of the material is only valid when the material has been stored at the correct storage condition.

Storage temp.	-35°C~-42°C	-18°C~ -22°C	0°C~ 5°C	18°C~ 28°C
Shelf life	6 months	3 months	1 month	2 days

Transport

It is stored in a low-temperature ice bag during transportation to ensure product quality. When you receive the product and find that the ice pack has been completely thawed, please take a photo for storage and do not use it and notify our sales staff immediately.

Availability

FeedBond® adhesives are packaged in syringes or pots per customer specification. For the details, please contact our Customer Service or sales department.