

Technical Data Sheet

FeedBond® AP-1200-A1

Non-Conductive Adhesive

Introduction:

AP-1200-A1 is single component type inorganic filled acrylate based paste for die attaching IC, NCAI package which require very high reliabilities.

Characteristics:

- Voidless
- Good adhesive strength

UNCURED PROPERTIES		TEST DESCRIPTION	TEST METHOD
Appearance	red	Brookfield DV-III/CP-51 @ 5rpm Brookfield DV-III/CP-51 Visc. @ 0.5rpm/Visc @ 5rpm 25% increase in visc. @ 5rpm	FT-P006
Viscosity @ 25°C	11000 cps		FT-P008
Thixotropic Index @ 25°C	4.2		FT-P024
Work Life @ 25°C	24 hours		FT-P018
Shelf Life@ -40°C	12month		
CURE PROCESS DATA		TEST DESCRIPTION	TEST METHOD
Weight loss on cure	2.7%	TGA	FT-P010
Standard Cure Condition		60 minutes @175°C	
Alternate Cure Condition		5°C/min ramp to 175°C + 60 minutes @ 175°C	

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

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PHYSIOCHEMICAL PROPERTIES- POST CURE		TEST DESCRIPTION	TEST METHOD
Glass Transition Temperature	24 °C	DMA Tension Mode	FT-M016
Dynamic Tensile Modulus		Dynamic Mechanical Thermal	FT-M019
@ -60°C	1395MPa	Analysis using 0.3 mm thick specimen	
@25°C	1095MPa		
@150°C	224MPa		
@250°C	75 MPa		
Coefficient of Thermal Expansion			
Below Tg(α 1)	56ppm/°C	TMA Expansion Mode	FT-M016
Above Tg(α 2)	126ppm/°C		
Moisture Absorption @Saturation	0.3%	Dynamic vapor sorption after 85°C/85% RH exposure	FT-P032
Weight loss@300°C	0.9%	TGA	FT-P010
Ionics			
Cl-	10 ppm	Teflon flask, 20~40 mesh, 5g	FTC-021
Na+	10 ppm	sample in 50g DI water,	
K+	10 ppm	24hr@100°C	
MECHANICAL PROPERTIES- POST CURE		TEST DESCRIPTION	TEST METHOD
Die Shear Strength @ 25°C	15 kg/die	2mmx2mm Si die on Ag/Cu LF (80milx80 mil)	FT-M012
@250°C	2.0 kg/die		
THERMAL ELECTRICAL PROPERTIES- POST CURE		TEST DESCRIPTION	TEST METHOD
Thermal Conductivity	0.4W/m • K	TA Laser flash	FT-P022A
Volume resistivity	10 ¹³ ohm-cm	4-Point Probe	FT-P017

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.

P.S. This information corresponds to our current knowledge on the subject. It is offered solely to provide possible suggestions for your own experimentation. It is not intended; however, to substitute for any testing you may need to conduct and to determine the suitability of our products by yourself for your particular purposes. This information may be subject to revision as new knowledge and experience become