United Adhesives

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EP 1723

Non-Slump Snap Cure Epoxy Adhesive

Typical Properties			
Property	**Unit**	**Value**	**Test Method**
Color of Component		Grey	Visual
Density	Gram /cc	1.5	ASTM D792
Viscosity at 25°C, 5 1/s	cps	45,000	ASTM D2196
Thixtropic Index		3.2	ASTM D2196
Property as Cured			
Color of Component		Grey	Visual
Hardness	Shore D	83	ASTM D2240
Dielectric Constant	@1000Hz	4.0	ASTM D150
Dielectric Strength	Volt/mil AC	> 400	ASTM D149
Volume Resistivity (@24°C)	Ohm-cm	> 10E+13	ASTM D257
Coefficient of Thermal Expansion	ppm/℃	< 120 (>Tg) < 50 (<Tg)	IPC-TM-650
Tg (after cure at 150℃)	℃	145	DMA
Adhesion (Al / Al lap shear)	Psi	> 1500	ASTM D1002
Peel Adhesion (Al / Al foil, 90 degree peeling)	Lb / inch	> 3	ASTM D3330
Temperature Usage	℃	-80 to 180	TGA
Cure Profile			
Cure at 185°C	second	6 to 10	Durometer
Cure at 155°C	minute	1 to 2	Durometer
Cure at 105°C	minute	15	Durometer
Pot / Work Life at 25°C	Day	> 10	Viscosity double

These figures are only intended as a guide and should not be used in preparing specifications.

Characteristics

EP 1723 is a non-slump snap cure epoxy adhesive for electronic bonding applications. It is a one-part, thixotropic (non-slump), and rubber-modified formulation. It can be cured in seconds at 180℃ to 185℃. After cure, it provides strong bonding to silicon, BGA, ceramics, FR4, LTCC, aluminum, copper, stainless steel, etc. with impact resistance and reduced thermal stress. EP 1723 is printable with screen or stencil.

Special Features and Benefits

- Fast cure at elevated temperature
- Strong impact resistance
- Strong bonding to various substrates
- Thixotropic (non-slump)
- Low bleeding, low volatile

Typical Applications

- Bonding of die to LTCC, Al, Cu
- Screen / stencil printable for patterning
- Bonding for film lamination
- Attach PCBs, base plates, components
- Seal lids, covers, housings, connectors
- Vibration dampening
- Aerospace & Automotive electronics
- Semiconductor & Telecommunications

EP 1723 has a shelf life of at least 6 months when stored in refrigerator (e.g. 4℃) in the originally sealed container.

Processing Instruction

The adhesive is a pre-mixed adhesive as one part for easier applying. In order to keep longer usage life, please always store the original or left material in refrigerator (e.g. < 4℃).

We recommend running preliminary tests to optimize conditions for the particular application. Comprehensive processing instructions can be obtained by contacting directly to United Adhesives, Inc.

Storage

EP 1723 has a shelf life of at least 6 months when stored in refrigerator (e.g. 4℃) in the originally sealed container. The 'Best use before end' date of each batch appears on the product label. Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Safety information

General hygiene regulations should be observed. Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from United Adhesives, Inc.