



U8410-73CF3

CAPILLARY UNDERFILL MATERIAL

1 DESCRIPTION

U8410-73CF3 is an epoxy based insulating material for FLIP-CHIP manufacturing. It's excellent flowability allows narrow gap penetration between substrate, integrated circuit chip, and interconnect bumps providing excellent reliability during thermal cycles.

2 APPLICATIONS

- Flip-Chip BGA/LGA/PGA
- Flip-Chip CSP

3 KEY FEATURES

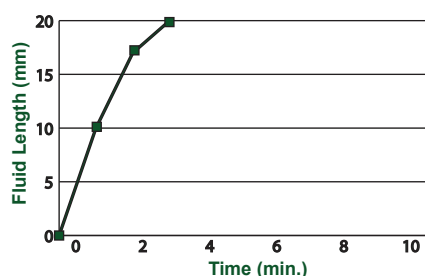
- Fine pitch and narrow gap compatibility
- Excellent reliability performance for both Lead (Pb) free and Copper (Cu) Pillar Bumps
- Excellent reduced stress and Low K layer
- Excellent coplanarity / low warpage
- Excellent jet-ability

4 TYPICAL PROPERTIES *

Parameter		Unit	Note / Condition
U8410-73CF3			
Filler Content		55 wt%	
Filler Size	Mean Max	0.5 0.6	μm
Color		Black	
Viscosity		33	Pa·s @25°C
Thermal Conductivity		0.40	W/mK
Tg	DMA TMA	107 88	°C
Coefficient of Thermal Expansion (CTE)	<Tg >Tg	31 118	ppm/°C
Bending Modulus		8.8	GPa
Bending Strength		135	MPa
Storage Modulus (DMA)	<Tg >Tg	8.5 0.07	GPa
Volume Resistivity	Initial After PCT	>1.0x10 ¹⁵ >1.0x10 ¹⁰	Ω·cm
Impurities Concentration	Cl ⁻ Na K	< 50 < 10 < 5	ppm

* This data is for reference and is not guaranteed.

5 FLUIDITY



Test Conditions

Substrate : FR-4
 Chip : Glass
 Gap : 50μm
 Temperature : 110°C

6 STORAGE AND HANDLING

- Store -40°C or below for up to 12 months.
- Thaw before use. Warm at room temperature until no longer cool to touch (normally 60-90 minutes). Do not thaw in oven.
- Wear gloves when handling product.
- Clean contaminated skin with soap and water.

10 MORE INFORMATION

For more information on U8410-73CF3 and other NAMICS products contact your local NAMICS sales office:

NAMICS Corporation Japan

NAMICS Technologies, Inc. USA

NAMICS Europe GmbH Germany

Singapore NAMICS Company Pte. Ltd Singapore

Taiwan NAMICS Electronics Co., Ltd. Taiwan (R.O.C.)

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7 PROCESSING GUIDELINES

- Standard dispensing conditions:
 Needle: 22-25G
 Temperature: Substrate 90-120°C
- Curing condition: 150°C/2 hours

8 POT LIFE INFORMATION

- Pot life at 25°C is up to 24 hours.

9 ORDERING INFORMATION

U8410-73CF3

- Available in syringes only.
- Standard syringe sizes and fill amounts are 10cc filled with 10 grams and 30cc filled with 30-50 grams.
- Contact your local NAMICS office.