NAMICS CORPORATION

KS3115

SUF1589-1

SECONDARY UNDERFILL MATERIAL

① DESCRIPTION

SUF1589-1 CSP/BGA board level underfill is used for filling and sealing spaces by capillary action when doing secondary mounting of packaged chips to a motherboard. CSP/BGA board level underfill material improves thermal cycle performance and enhances impact resistance (drop-test qualification) while providing protection from environmental effects.

② APPLICATIONS

- Board level underfill
- Board level reliability applications

③ KEY FEATURES

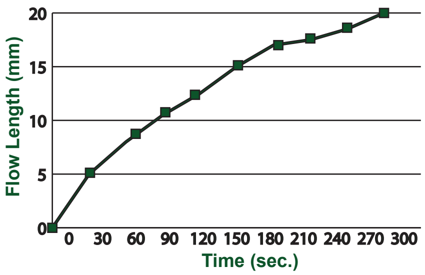
- High throughput (fast flow and cure)
- Excellent reliablity performance (T/C, drop)

④ TYPICAL PROPERTIES *

Parameter		SUF1589-1	Unit	Note / Condition
Filller Content		70	wt%	
Filler Size	Mean Max	5 25	µm	Measured by laser diffraction
Color		Black		
Viscosity		10	Pa·s	@25°C
Thermal Conductivity		0.55	W/mK	
Tg (TMA)		120	°C	Compression
Coefficient of Thermal Expansion (CTE)	<Tg >Tg	23 80	ppm/°C	TMA
Bending Modulus		13	GPa	
Volume Resistivity	Initial Afer PCT	$>1.0x10^{15}$ $>1.0x10^{13}$	Ω·cm	DC 500V PCT: 121°C, 2atm, 20 hours
Impurities Concentration	Cl^- Na K	< 50 < 10 < 10	ppm	PCT: 121°C, 2atm, 20 hours

* This data is for reference and is not guaranteed.

5 FLUIDITY



Test Conditions

Substrate : FR-4
Chip : Glass
Gap : 100µm
Temperature : 70°C

6 STORAGE AND HANDLING

- Store -20°C or below for up to 6 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.

7 PROCESSING GUIDELINES

- Standard dispensing conditions:
  Needle: 18-23G
  Temperature: Substrate below 70°C
- Curing condition: 120°C/20 min.
  150°C/3 min.

8 POT LIFE INFORMATION

- Pot life at 25°C is up to 24 hours.

9 ORDERING INFORMATION

SUF1589-1
• 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.

10 MORE INFORMATION

For more information on SUF1589-1 and other NAMICS products contact your local NAMICS sales office:

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