

肥特補科技
Feedpool Technology
Co., Ltd.



Fast UV cure, thermal post-cure



Strong adhesion to various substrates

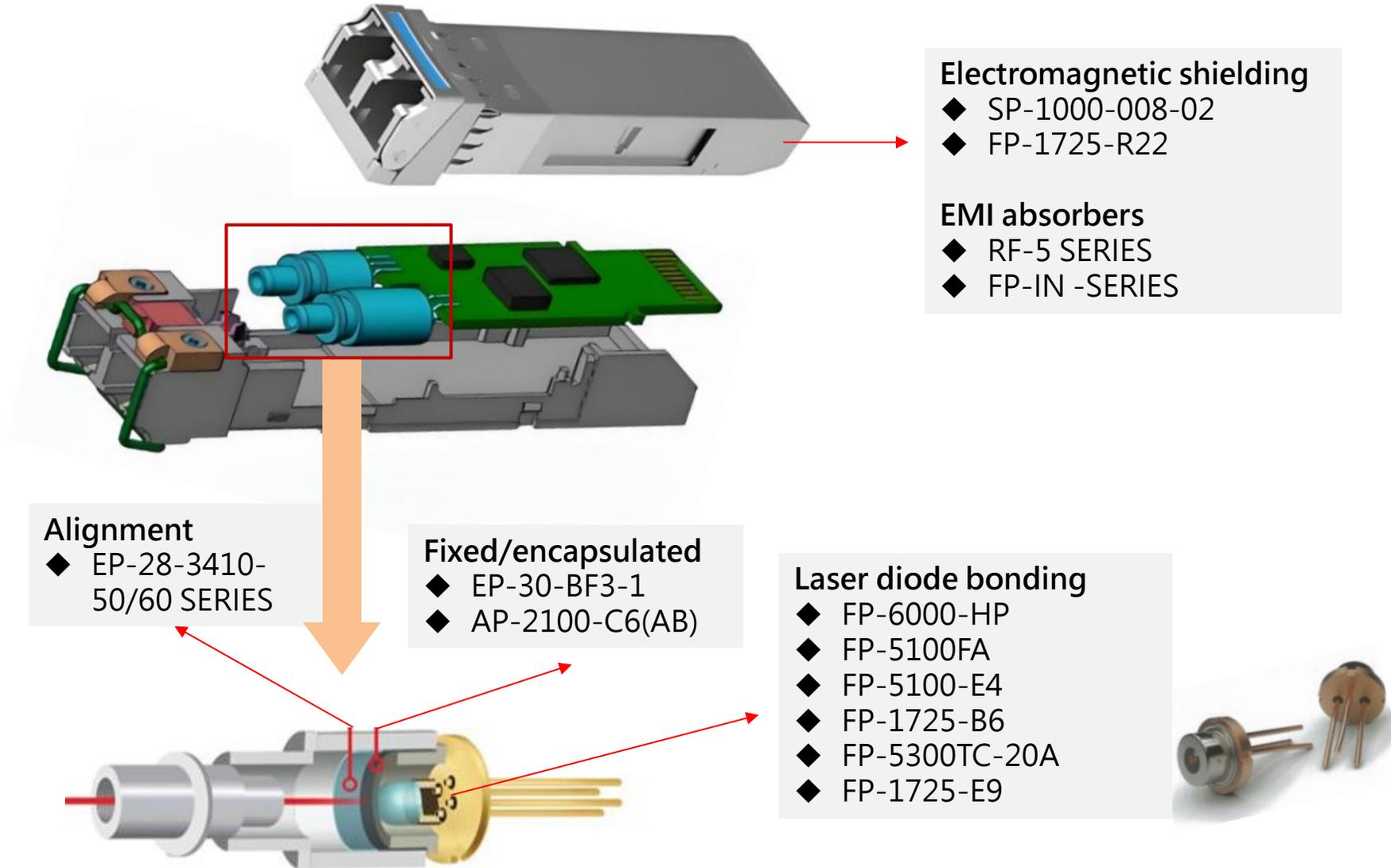


Low CTE, high dimensional stability

**UV-Thermal Dual-Cure
Insulating Adhesive**

EP-28-3410-50K

Optical Module Product Applications





As the optical industry scales, the demand for massive data transmission has driven module power levels higher. To address these thermal challenges, Feedpool has developed a high-performance **UV/Thermal Dual-Cure adhesive**.

The **EP-28-3410-50K** offers the following key advantages:

- ❑ **Rapid UV Curing:** Enables instant positioning and bonding of precision components.
- ❑ **Low CTE:** Ensures dimensional stability under thermal variations; ideal for alignment and fixation of precision optical components.
- ❑ **Broad Adhesion:** Reliable bonding to Glass, Metal, PEI, PCB, Ceramic, Gold-coated, Aluminum, and FeNi alloys.
- ❑ **Environmental Resistance:** Excellent thermal conductivity and sealing; provides waterproof protection and thermal shock resistance.
- ❑ **Primary Application:** Optical modules.

Physical Properties of EP-28-3410-50K



Physical Properties

Appearance	Milky White
Density	1.84 g/cm ³
Viscosity @ 25°C	33,400 cp
TI @ 25°C	1.28
Work Life @ 25°C	24 hrs
Storage Life @ -20 ~ -40°C	6 months

Curing Condition

UV curing	High Pressure Hg Lamp(200~500nm) or UV LED (365nm) 2000~4000 mJ/cm ²
Thermal curing	100°C@60 mins or 110°C@45 mins or 120°C@30 mins or 150°C@10 mins

Cured Properties

Hardness	Shore D 92
Tg	152 °C
CTE < Tg(α 1)	21 ppm/°C
CTE > Tg(α 2)	70 ppm/°C
Modulus @25°C	10674 MPa
Linear Shrinkage	< 0.07 %
Thermal Conductivity	0.86 W/mK



Comparison of Physical Properties

	OPTOCAST 3410 GEN2	EP-28-3410-50K
Appearance	Milky White	Milky White
Density (g/cm ³)	1.85	1.84
Viscosity@25°C (cp)	33800	33400
TI @25°C	1.10	1.28
Filler Content (%)	78.2	76.1
Hardness (ShoreD)	92	92
CTE (ppm/°C)	17 / 54	21 / 70
Tg (°C)	167	152
Modulus (MPa)	13615	10674
Thermal Conductivity @25°C (W/mK)	0.88	0.86

Comparison of Curing Condition



	OPTOCAST3410 GEN2	EP-28-3410-50K
UV Curing	320 ~ 550nm	320 ~ 550nm or UVLED(365nm) 2000 ~ 4000 mJ/cm ²
Thermal Curing	100 ~150°C @10~60min	100°C @ 60min or 110°C @ 45min or 120°C @ 30min or 150°C @ 10min

Adhesion Comparison with Commercial Products



Cured Properties		OPTOCAST 3410 GEN2	EP-28-3410-50K	FeedPool Test Method
Substrate	PEI	○	○	Post Curing Evaluation
	FeNi alloy	○	○	
	Al	○	○	
	FPC /PCB	○	○	
	Gold-coated	○	○	
	Glass	○	○	



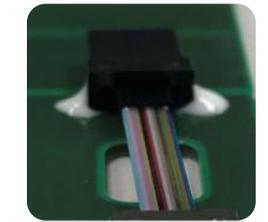
PEI



FeNi alloy



Al



FPC/PCB

Reliability TCT (-40°C/30mins~120°C/30mins · 10 cycles)				
Substrate	PEI	○	○	Post Curing Evaluation
	FeNi alloy	○	○	
	Al	○	○	
	FPC /PCB	○	○	
	Gold-coated	○	○	
	Glass	○	○	



Gold-coated



Glass

Adhesion Strength to PCB



Cured Properties	OPTOCAST 3410GEN2	EP-28-3410-50K
Adhesion (kgf) Substrate: Gold-coated/PCB	3.2	5.5

Dispensing Weight: 0.01~ 0.02g

Curing Condition: UV 2000mJ/cm² + 120°C@30min

Adhesion on Various Substrates and TCT Reliability



Cured Properties		OPTOCAST 3410 GEN2	FeedBond® EP-28-3410-50K	FeedBond® EP-28-3410-60M	FeedPool Test Method
Substrate	PEI	○	○	○	Post Curing Evaluation
	FeNi alloy	○	○	○	
	Al	○	○	○	
	FPC /PCB	○	○	○	
	Gold-coated	○	○	○	
	Glass	○	○	○	

Reliability TCT (-40°C/30mins~120°C/30mins, 10 cycles)					
Substrate	PEI	○	○	○	Post Curing Evaluation
	FeNi alloy	○	○	○	
	Al	○	○	○	
	FPC /PCB	○	○	○	
	Gold-coated	○	○	○	
	Glass	○	○	○	

The data above are measured under laboratory conditions and are for reference only. Customers are advised to conduct thorough testing under their specific application conditions to ensure accuracy



Al



PEI



FPC



FeNi alloy

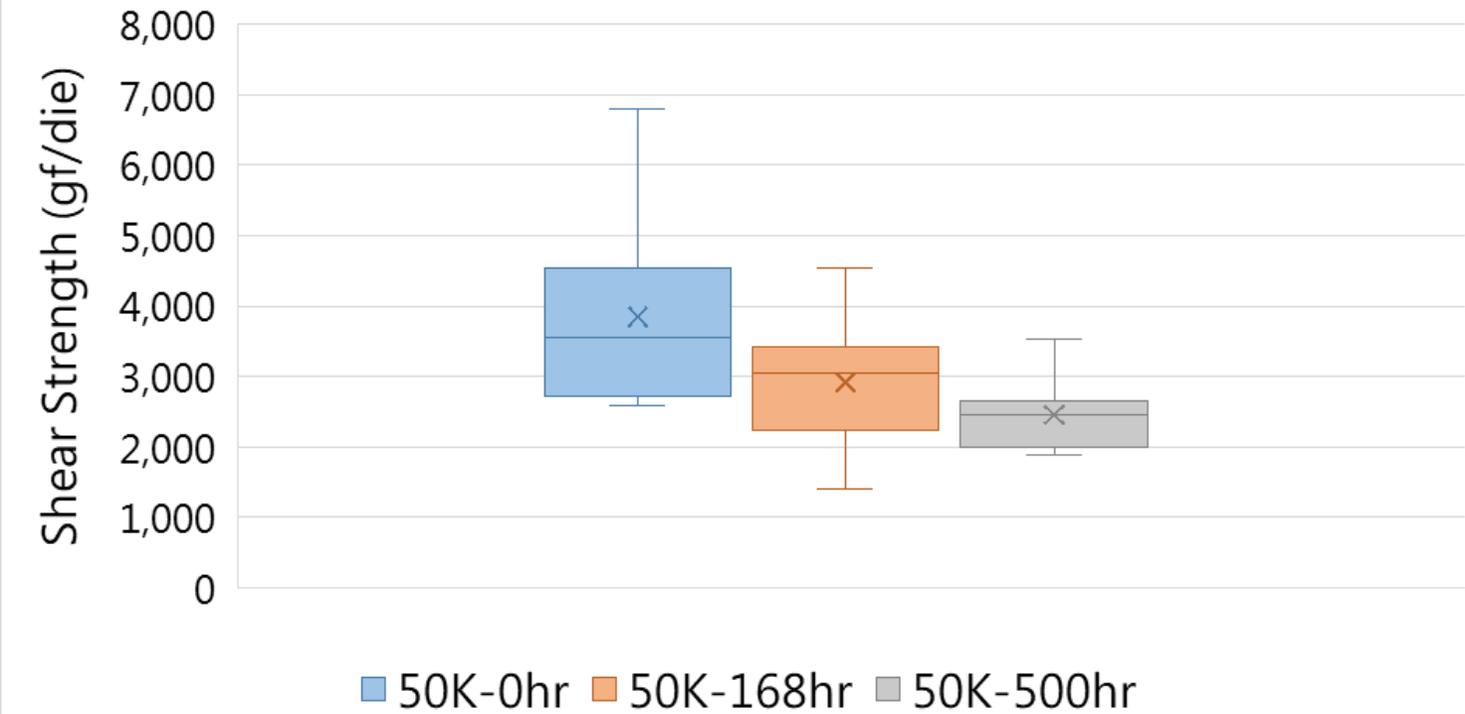


Glass

85°C/85%RH Reliability Test

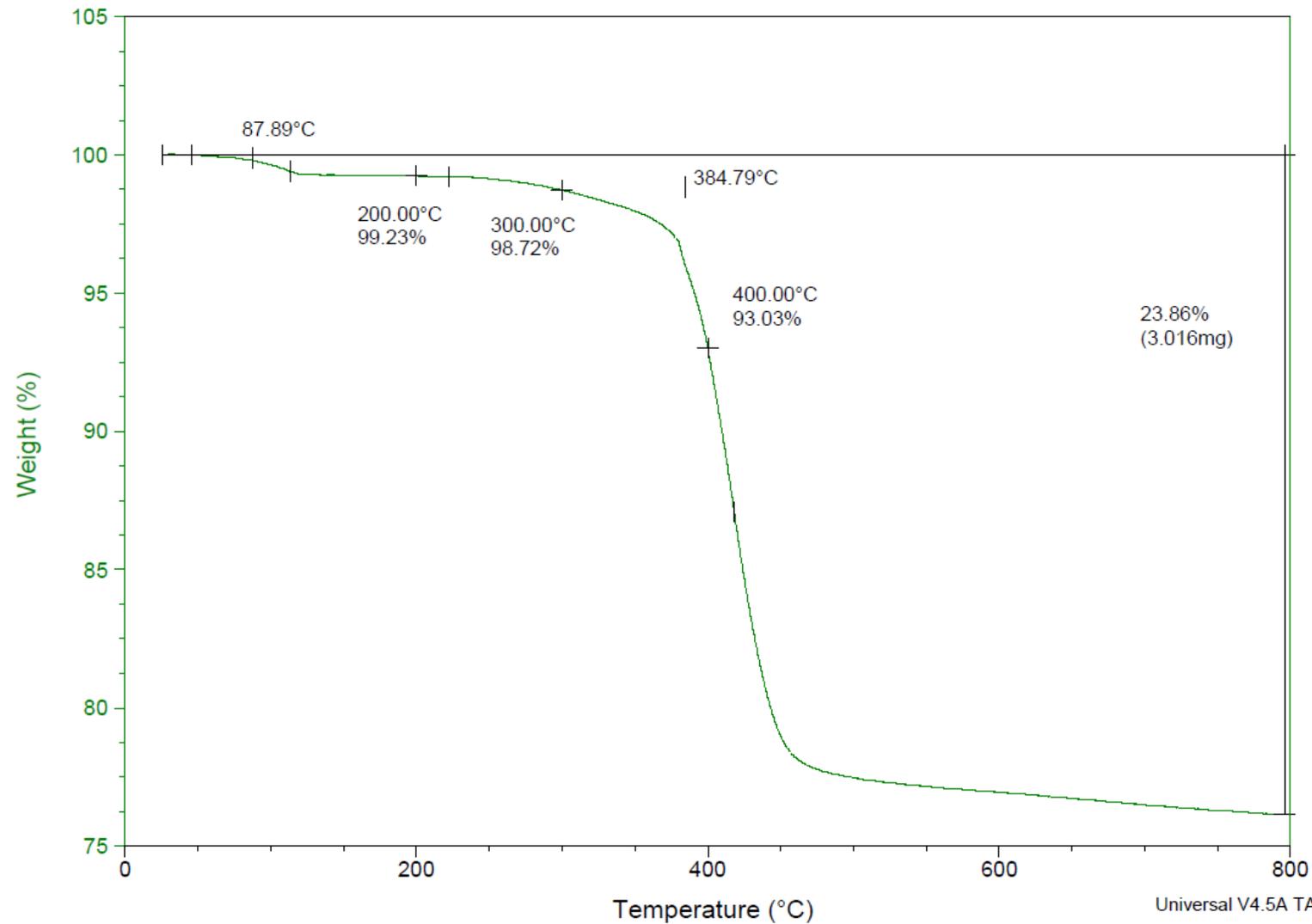


85°C/85%RH-500hr Reliability Test

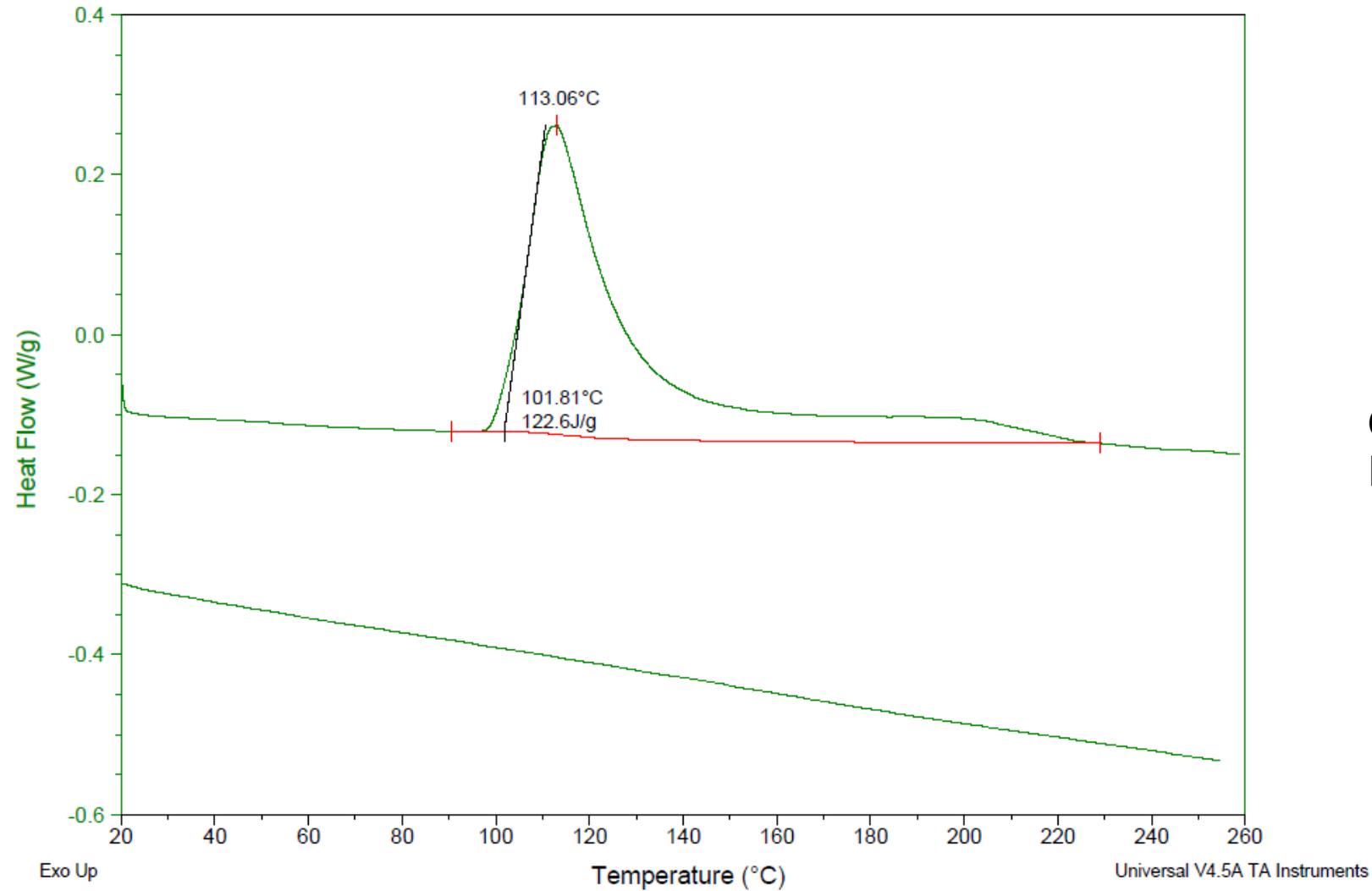


Curing Condition: 3000mJ/cm² + 100°C-1hr

Adherends: 1mm*1mm Si die / glass



Inorganic Substance Content 76.14%



Onset of Exotherm 101.81°C
Peak Exotherm 113.06°C

如需進一步資訊，歡迎與我們聯繫：
For more information, please feel free to
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