凯美亚化学有限公司
KEMIACHEM CO., LIMITED.

LED Encapsulant 5088A/B

1． Feature

5088A/B is a two components transparent liquid thermoset alicyclic epoxy resins which is developed for LED encapsulation. High Tg, long pot life, high temperature resistance and anti-UV light without yellowing. 5088A/B is wildly used in monochrome, RGB, or 3014, 3528, 5050 and other types of leadframe. The mixed (resin & hardener) viscosity can be adjusted within 600-10000 mPa S, in order to prevent different phospher from settling.

2． Typical Properties Before Curing

Item	Unit	Resin 5088A	Hardener 5088B	Remarks
Component		Alicyclic Epoxy Resin	Acid Anhydride	
Color		Transparent	Transpatent	
Mixture Ratio	wt	100	120	
Density（25℃）	g/cm^3	1.16	1.18	
		1.17（mixture）		
Viscosity（25℃）	mPa·S	3000±1000	2000±1000	Adjustable
		2500±1000（mixture）		Adjusted within 600-10000
Gel Time（120℃）	minute	8±3		

PS: The above are representative of values, not specification value

3. Recommended IFU（Clean containers and tools before use. Introduction of foreign matter may affect performance of Encapsulant）

Step	Action	Caution
1. preheating of resin	Clean the container before use, 100 aliquots of 5088A is preheated at 80℃ for 40min.	Make sure container is clean

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2. Mixing	120 aliquots of 5088B is added into 5088A, which is already preheated. Mix well with mixing propeller at 200rpm for 10-20 min.	A: B=100:120 (w/w) make sure proper mixing
3. Defoaming	Vacuum machine with vacuum degree at -0.1MPa is used for 2-10min until bubbles are completely removed.	Make sure there is no bubble left
4. Encapsulation	Use a dispenser to dispense. Clean the encapsulant left within the dispenser before use	Make sure there is no other foreign matter within the dispenser
5. Initial Roast	Keep holder in the oven at 120℃ for 1h	Make sure there is no other Encapsulant in the oven. Timing begins after oven temeperature reachs 120℃
6. Long Time Roast	Keep holder (after initial roast) in the oven at 150 ℃ for another 2.5h	Make sure there is no other Encapsulant in the oven. Timing begins after oven temeperature reachs 150℃

Notes: the mixture should be used within 10h after mixing. Viscosity would rise over time, which will influence performance. Call technical service if you have any questions.

4. Typical Properties After Curing

Item		Unit	Value	Remarks
Recommended Curing Conditions		120℃×1h+150℃×2.5h		
Glass Transition(Tg)		℃	158	TMA
CTE	< Tg	ppm/℃	65	40℃~80℃
	> Tg		168	190℃~210℃
Flexural Strength		N/mm^2	95	GB/T 2567-2008
Flexural Modulus		N/mm^2	3000	GB/T 2567-2008
Hardness(Shore D)			> 85	Shore D
Refractive Index			1.50±0.01	Abbe
Water Absorption		Wt%	0.3	100℃/1hr

PS: The above are representative of values, not specification value

5. Packaging

5088A:1.0kg Fluoride Drum

5088B:1.2kg Fluoride Drum

6. Shelf Life

6 months under room temperature.

7.Safety

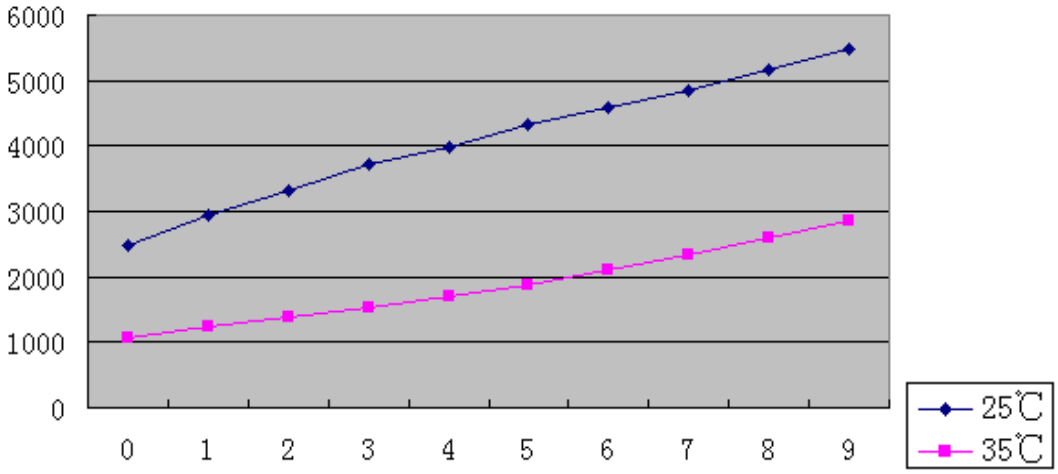
5088A may cause injury to skin following prolonged or repeated contact. Prevent prolonged or frequent contact. if contact occurs, wash at first opportunity with soap and water.

5088B may cause skin sensitization or other allergic responses. Avoid inhalation of vapor. Prevent all skin contact. If contact occurs, immediately with soap and water.

If you need to know about Safety and operating method of the detailed content, please refer to the MSDS (Material Safety Data Sheet).

8、Pot Life

Mixed Viscosity（wt(A)/wt(B)=100:120）



Testing Environment:	22℃/34%RH

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