

SUNTABA VACCUM PLATE

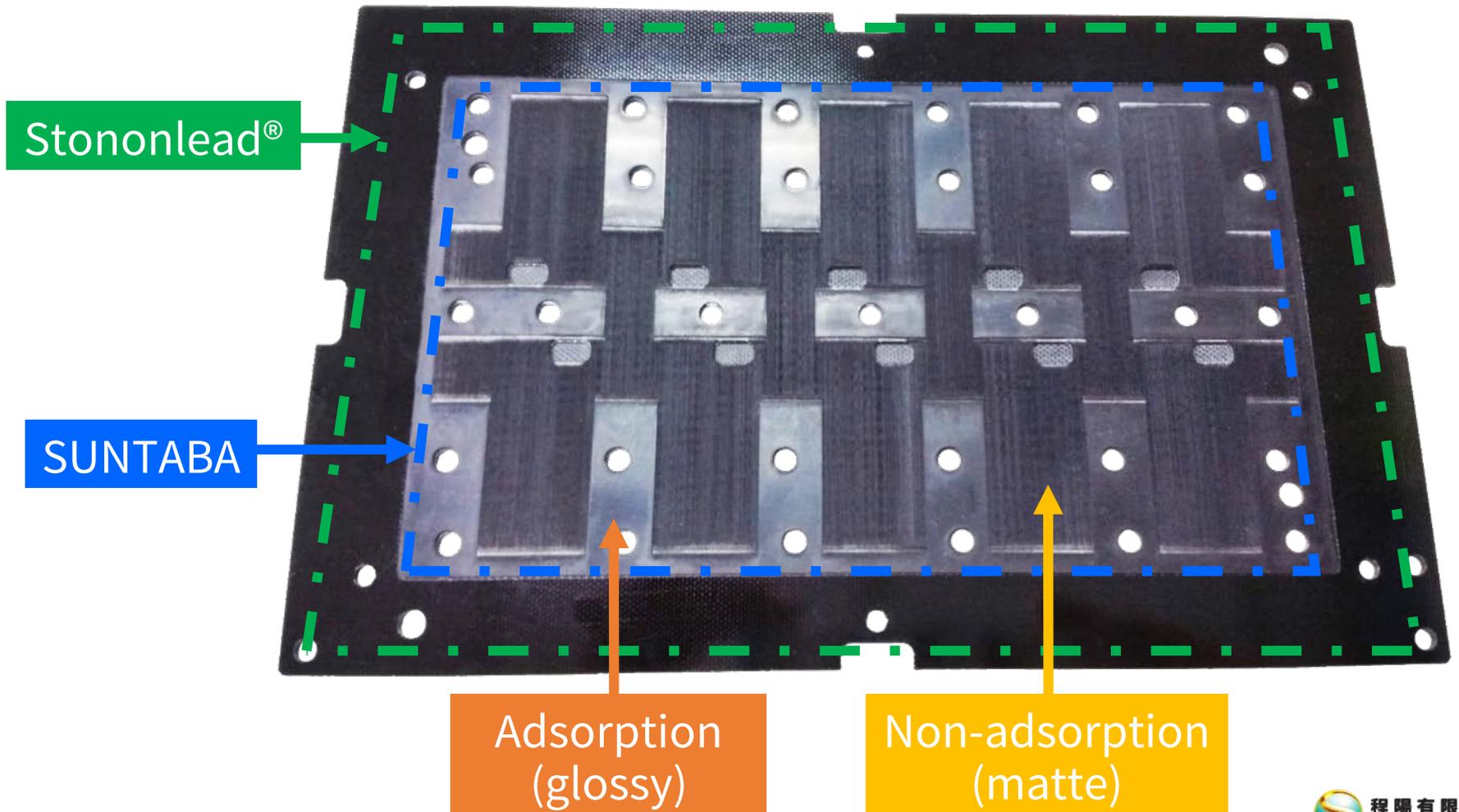
Just set it! The best solution for thin PCB and FPC production!

Due to the thin profile of mobile devices, circuit boards (PCB, substrate, FPC) are getting thinner and thinner.

- How can we prevent deformation when producing ultra-thin PCB boards?
- How do we fix the board into position and remove the PCB board when it is so thin?
- How do we automate the production of thin boards?

Based on the above issues, we developed the SUNTABA VACCUM PLATE, which uses the vacuum suction principle to replace the traditional taping methods. Solve the above problems easily and move towards automatic production.

SUNTABA VACCUM PLATE

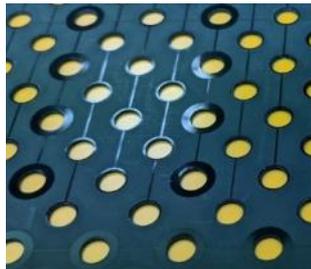


SUNTABA DESIGN

- Original : The adsorption strength large.
- Round design : Can adjust the strength of each ejector hole on the Suntaba.
- Striped design : Can effectively reduce the adsorption force by 50% in the target area.
- Irregular design : For complex and irregular substrates, special shapes can be custom designed.
- Snake-scale design : Can regulate the thermal expansion of the packaging process when exposed to heat



Original



Round



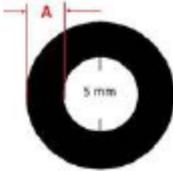
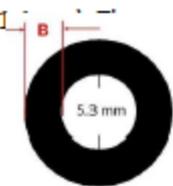
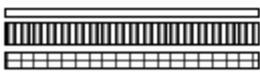
Striped



Irregular



Snake-scale

SUNTABA						
	ESD (T2)		BLACK (T0)			
RoHS · PFOS	Conformance					
Heat Resistance	250°C · 10~20 s					
Thickness	0.5 +0.05/-0 mm		0.5 ± 0.1 mm			
Size	410 x 360 mm		340 x 290 mm			
Surface Resistance	10 ⁴ ~10 ⁷ Ω		10 ¹² Ω			
Initial force (steel ball number)	7		8			
Thermal conductivity	0.6 w/mk					
Chemical Resistance	Very Good					
Lifetime	Over 2,000times (the duration of service life varies depending on the application method and environment)					
Alcohol wipe	Not affect (Return over 50 times)					
Ejecting force	The force required for SUNTABA to eject the PET film (thickness 0.07mm). The area in black is the adsorption area.					
	SUNTABA T0					
	A	1.5 mm	2 mm		3 mm	4 mm
	Average (g)	35	50		65	95
	SUNTABA T2					
	A	1.5mm	2mm		3mm	4mm
Average (g)	25	35	50	60		
Ejecting force	The force required by SUNTABA T2 to eject the glass (thickness 1 mm). area in black is the adsorption area.					
	SUNTABA T2					
	B	4.7 mm			3 mm	
Average (g)	715		635			
Structure layer				← PET ← Silicone ← Stononlead®		

SUNTABA ACID AND ALKALI RESISTANCE TEST

DIP TIME : 1 HR

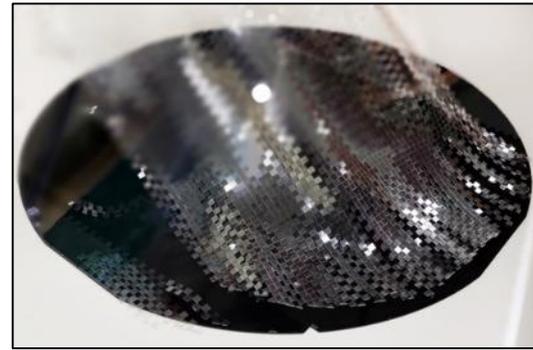
CHEMICAL	CONC.	TEMP	RESULT	CHEMICAL	CONC.	TEMP	RESULT
KOH	1 %	R.T	OK	FeCl3	-	R.T	OK
Na2CO3	1 %	R.T	OK	FeCl3	-	50°C	OK
NaOH	1 %	R.T	OK	CuCl2	-	R.T	OK
NaOH	5 %	R.T	OK	CuCl2	-	50°C	OK
NaOH	5 %	50°C	OK	HCl+H2O2	30%	R.T	OK
Ti etching	5%	R.T	OK				

SUNTABA VACCUM PLATE APPLICATIONS

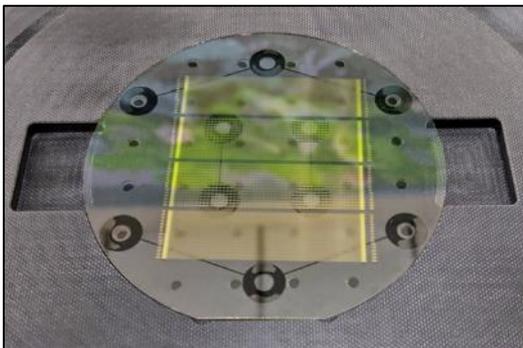
一、MINI LED



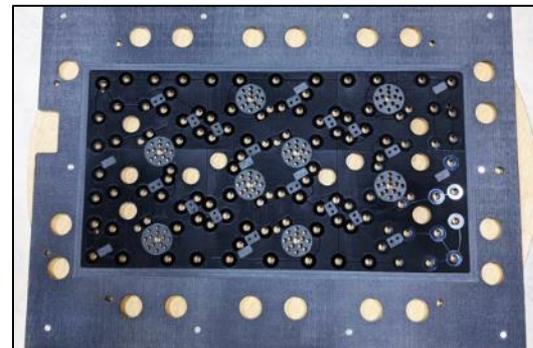
二、Semiconductor Packaging



三、Glass Substrate / wafer



四、Thin PCB / FPC

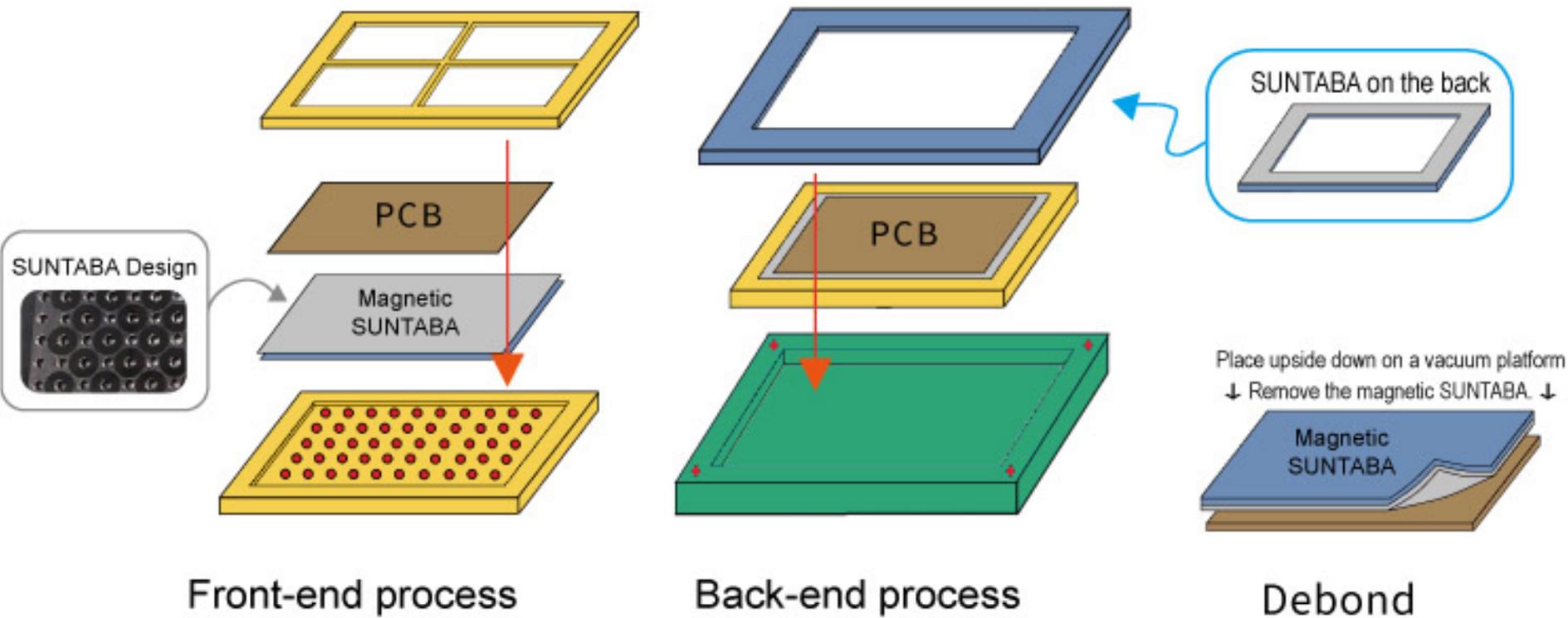


Mini LED APPLICATIONS

1. Adsorb and fix thin FPC and PCB without applying and removing adhesive tapes.
2. Control adhesion force for precise and flat adhesion.
3. Technologies for fixing into position the underside of circuit boards to ensure no interfere with the printing thickness, reduces the printing variables, and facilitates the overall flatness of the substrate.
4. Additional frame design eliminates scraper vibration during printing.
5. High temperature resistance, reusable, and no tape use for increased environmental friendliness and cost efficiency.
6. Auto-adsorption can be used for fully automatic production line operations.

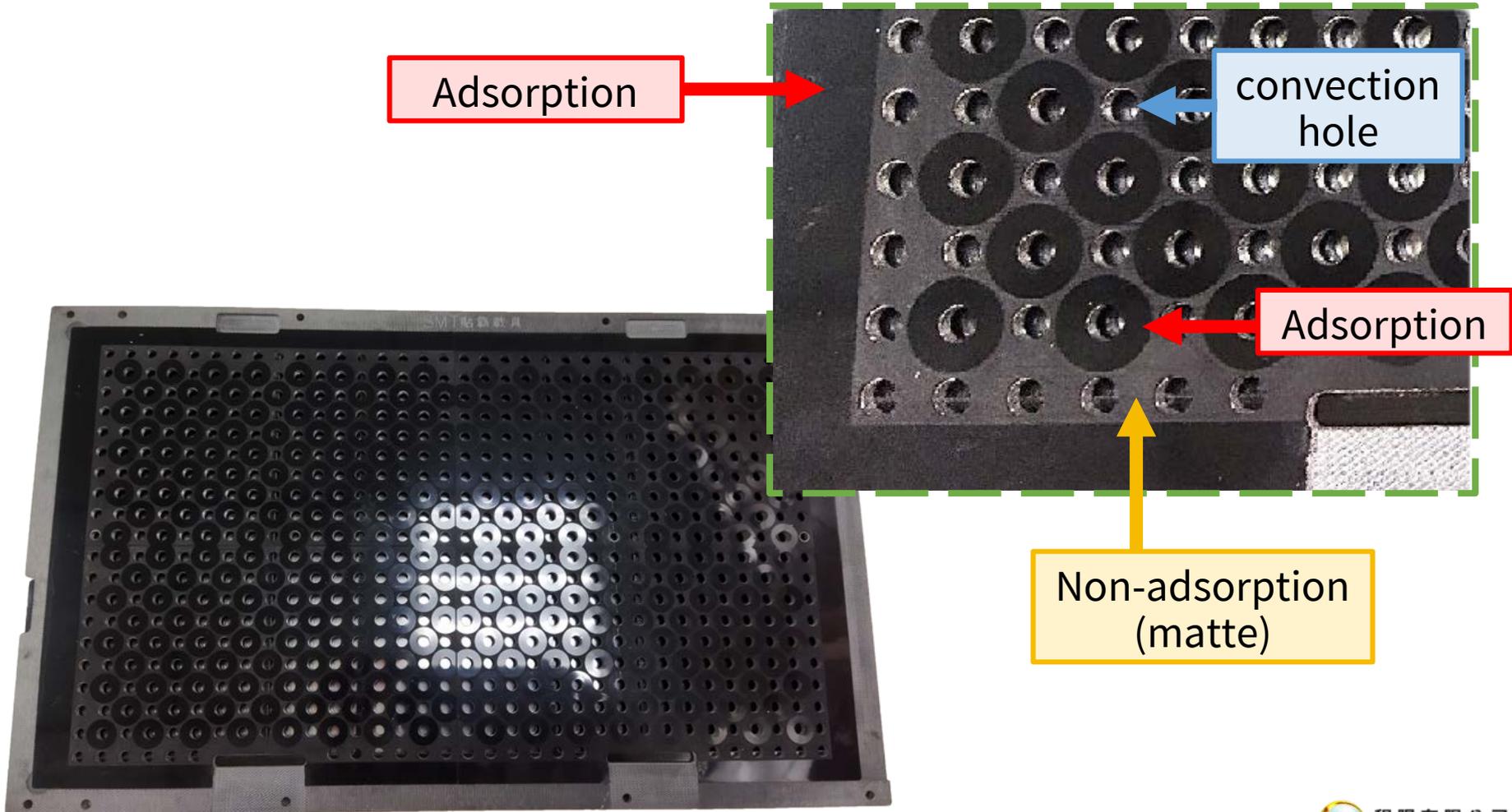
SUNTABA VACCUM MAGNETIC PLATE

Mini LED Applications



Stononlead Thermobstructor
 Magnet
 Magnetic SUNTABA
 PCB
 Aluminum

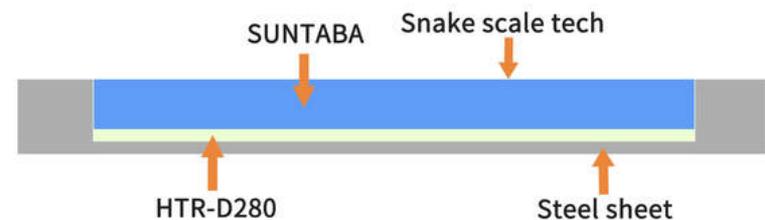
SUNTABA VACCUM MAGNETIC PLATE

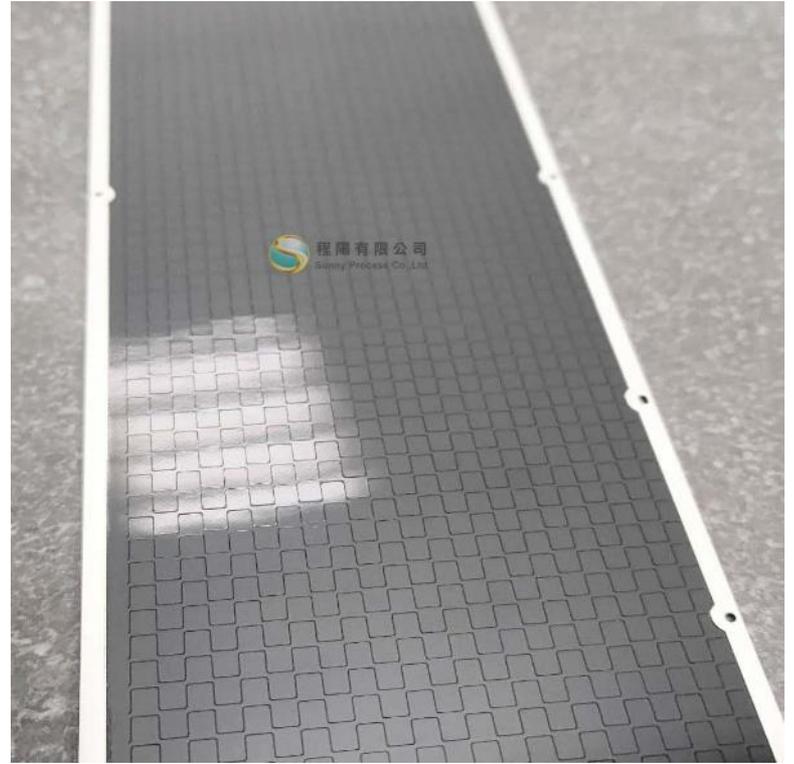
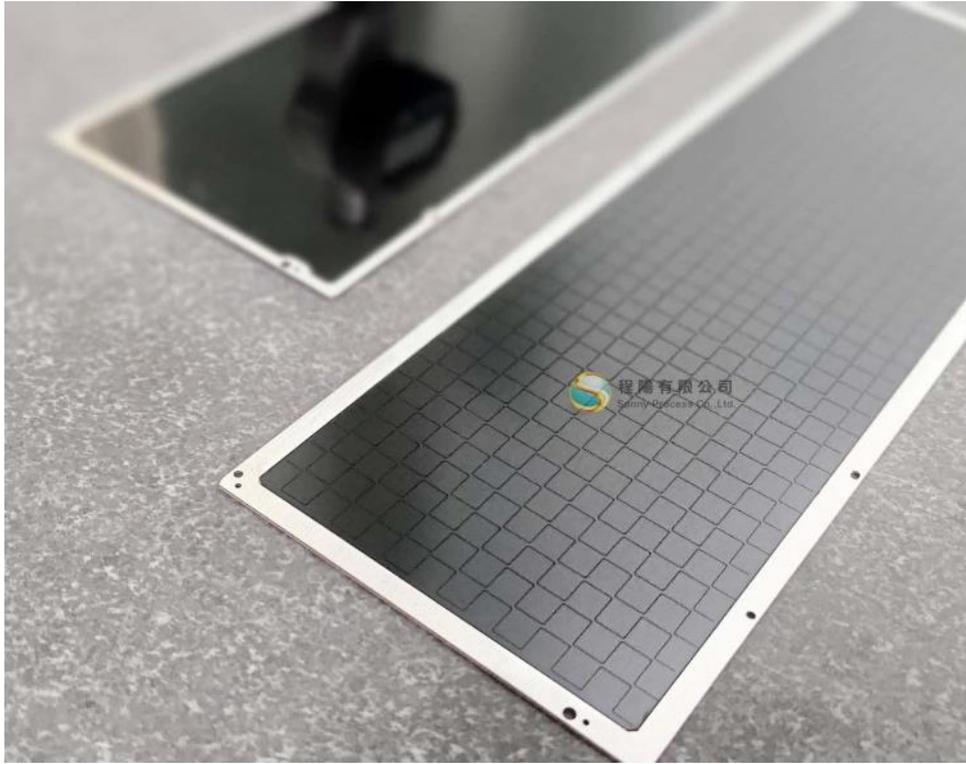


SEMICONDUCTOR PACKAGING APPLICATIONS

The combination of Snake Scale tech on the SUNTABA products eliminates air packing problems, maintains vacuum adsorption capability, and provides air pressure through the air holes, allowing for easy removal of thin substrates, no deformation, and full flattening for packaging process production.

1. Become thinner by 650um.
2. Flatter vacuum adsorption.
3. Heat resistant up to 260°C
4. Reusable and long-lasting.
5. Resistant to mold modding pressure.
6. Low dust and washable.

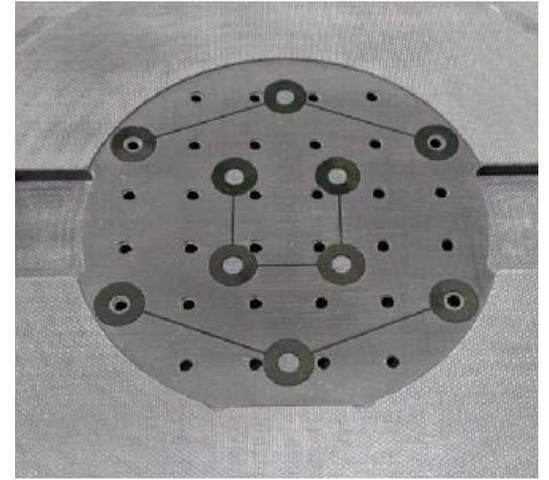
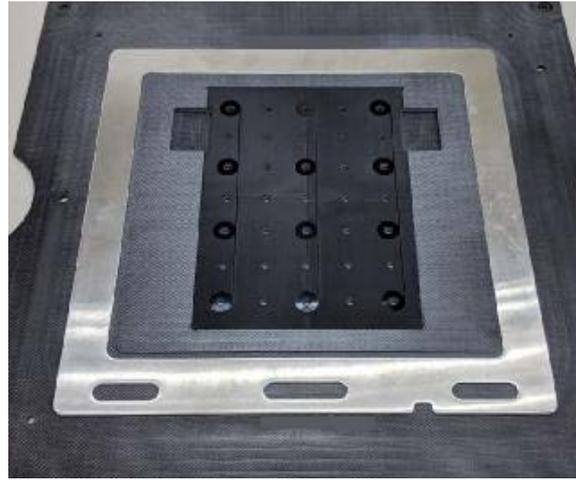




GLASS SUBSTRATE / WAFER APPLICATIONS

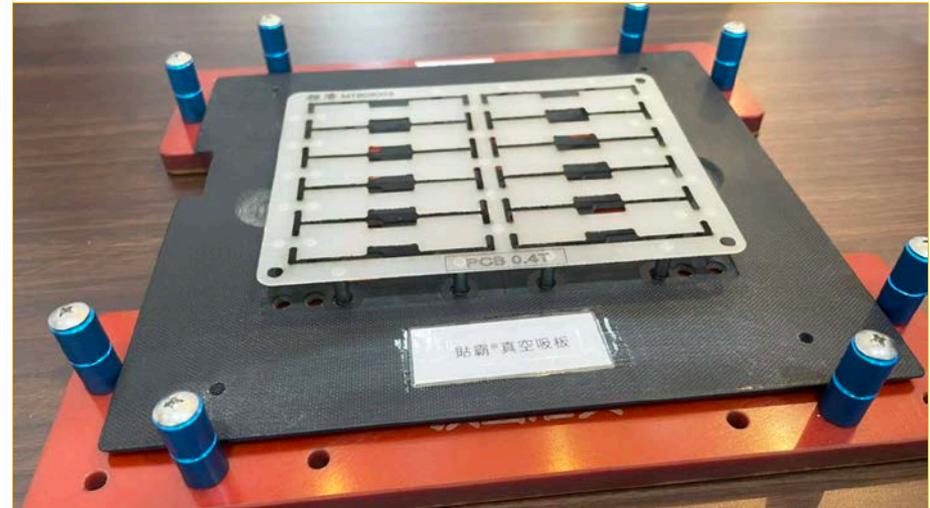
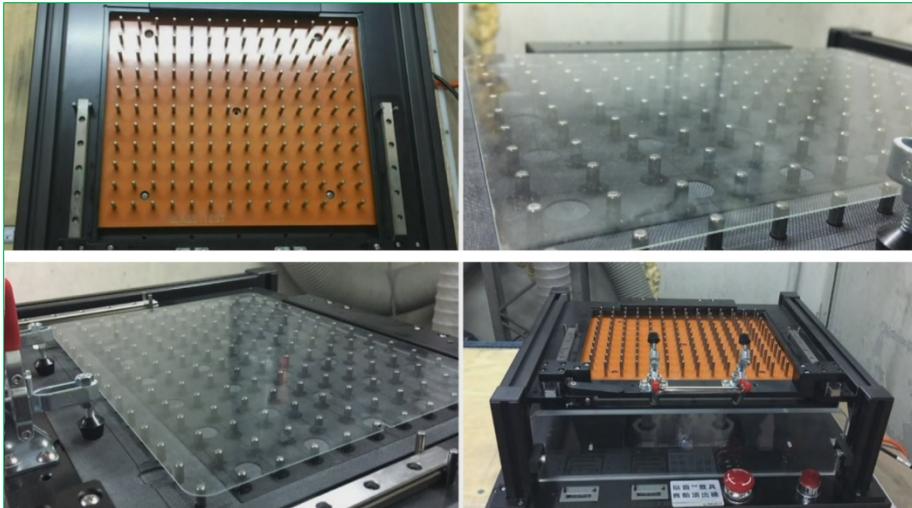
The use of carrier transport fixture with SUNTABA VACCUM PLATE enables glass substrate and wafer to be easily fixed, prevents breakage and deformation, and ensures safety when they are transferred and transported during the manufacturing processes.

The substrate can be fully supported by the carrier fixture during diebond printing and high-temperature processes, and will not be broken when separated, which is conducive to the completion of automated processes.



↓ Automatic ↓

↓ Manual ↓



SUNTABA DOUBLE-SIDED SUCTION SHEET

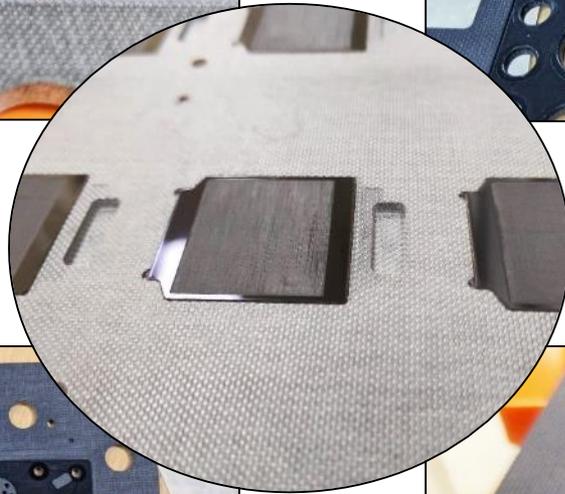
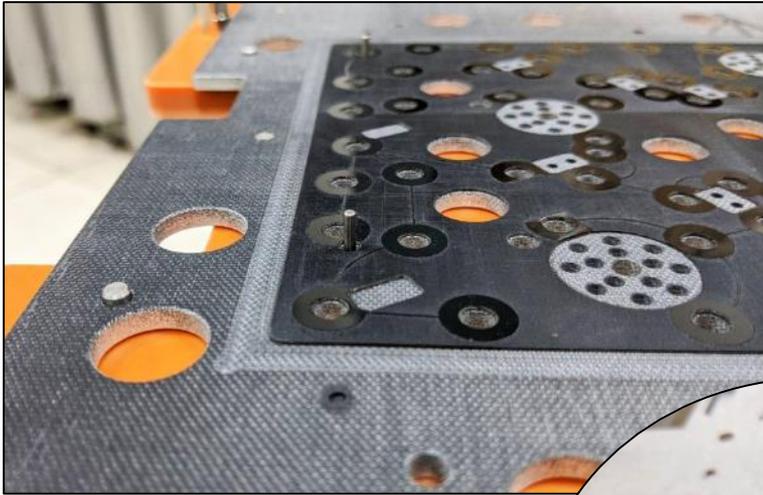
- Control vacuum adsorption and separation force by surface adsorption area and shape.
- Can be designed with double-sided or single-sided SUNTABA vaccom plate.
- Heat resistant up to 280°C, reusable, washable and stain-free.



THIN PCB/FPC APPLICATIONS

Thin PCB generally refers to the SMT process, with less than 0.6mm thickness. Commonly used materials include FR4, FPC, PI, PET, such as RFID, SD CARD, FLASH, FPC, COF ... etc. As shown in the picture, SUNTABA VACCUM PLATE can resolve the production problems of these substrates.

1. Reduces deformation of the PCB and improves the yield of the assembly.
2. Reusable, reduces emissions and is environmentally friendly.
3. Enhances automation and reduces manpower needs.
4. Panelized production for enhanced efficiency.



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