KHJ®

ADHESIVE TAPE SOLUTION
for
Precise Manufacturing Process

Semiconductor / Intelligent Automobile / Optical Communications

One-Stop Solution of
Consumables for Electronics
Manufacturing Process

Adhesive Tape Solution
for Precise Manufacturing
Process

COMPANY PROFILE
About KHJ

Experience & Capability

Established in 1999, KHJ is the leading manufacturer of ESD adhesive tape and SMT Splice Tape in the global electronic manufacturing industry.

With more than 20 years of anti-static adhesive products and precision coating research and development and production experience, We are equipped with industrial leading R&D team and laboratory, advanced production equipment and perfect quality system.

Production and R&D

With the long term cooperation with world's top 500 enterprises, hundreds of domestic and foreign electronic manufacturing factories,Over the past 20 years, our products have been involved in semiconductor manufacturing, 5G optical communication, photoelectric display, precision electronics and other fields.

We has the ability of research and development to meet customers special products customization requirement.

Currently, our anti-static high temperature resistant tape, UV release tape, Thermal release tape, SMT consumables etc… are unanimously recognized by the electronic manufacturing industry customers. With the concept of service first, quality first, delivery first and cost first to work with all our customers.

1999
Shenzhen KHJ Technology Co.,Ltd founded

2016
Chinese National Hi-Tech enterprise awarded

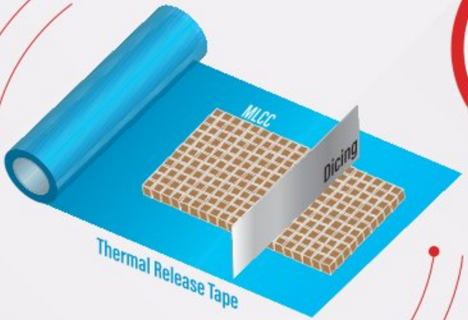
2019
Nanjing Qingshang New Material Technology Co.,Ltd founded

2019
Shenzhen Allex AutomationMachine Co.,Ltd founded

2022
IATF16949:2016 Global Automotive Quality Management system certificated.

01

PACKAGING OF SEMICONDUCTOR COMPONENTS

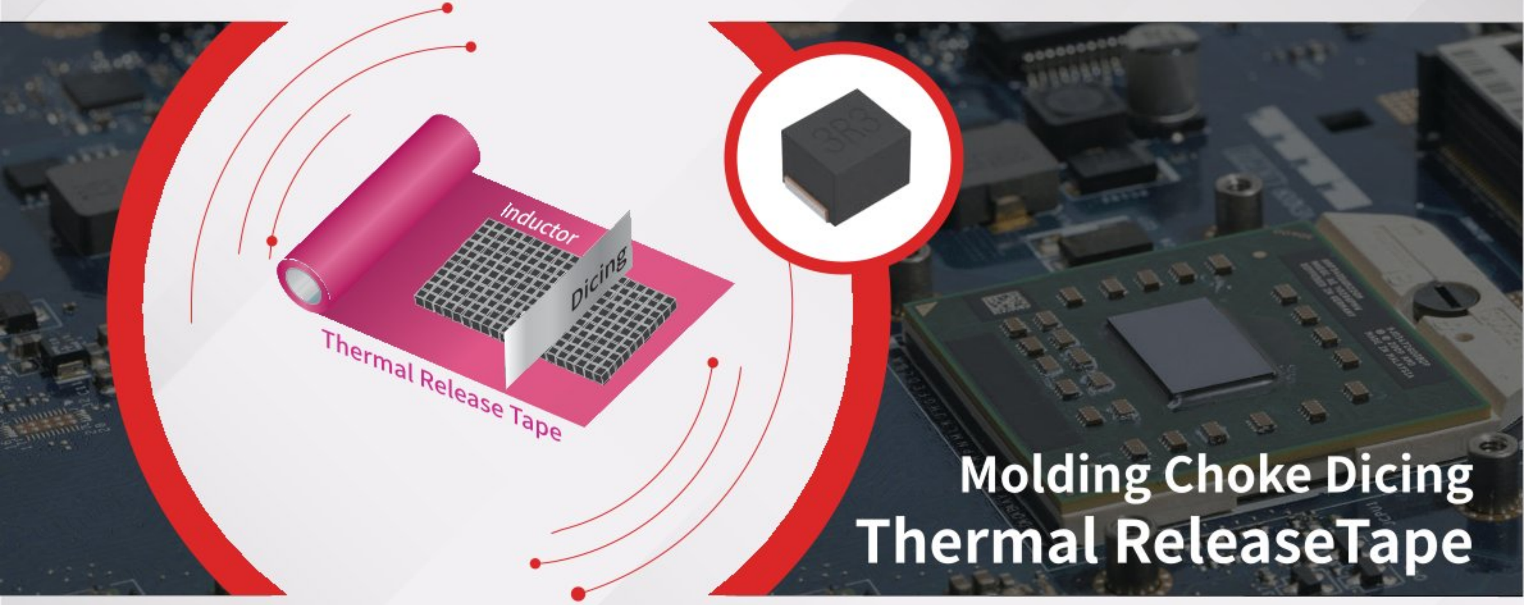


MLCC Dicing

Thermal Release Tape

01

PACKAGING OF SEMICONDUCTOR COMPONENTS



Molding Choke Dicing
Thermal ReleaseTape

Thermal Release Tape

The thermal release tape is a polyester film backed unique adhesive tape.Its adhesion equivalent to a normal adhesive tape at room temperature but can be easily peeled off when heating into certain temperature.

Features

- High adhesion at room temperature.
- Available releasing temperature from 90~150℃.
- No residue and damage to substrate when removing.
- It helps to realize automatic production and improve efficiency.

Application

- MLCC capacitor/inductor cutting process.
- LCD/TP touch panel glass thinning, LED cutting grinding polishing, sapphire substrate thin grinding process.

Construction

Series Products

P/N	Color	Backing thickness (um)	Total thickness (um)	Releasing Temperature	Releasing Time	180° Peeling(g/25mm)	
						Before heating	After heating
TS600D	blue	100±2	155±5	100 - 110°C	3 - 10min	>100	0
TS612P	purple	100±2	160±5	125 - 135°C	3 - 10min	>200	0
TS610G	green	100±2	155±5	125 - 135°C	3 - 10min	>200	0
TS618G	Light red	188±3	248±5	125 - 135°C	4 - 15min	150 - 300	0
TS630D	blue	75±2	135±5	135 - 160°C	3 - 10min	200 - 400	0
TS630HV	blue	75±2	135±5	140 - 150°C	5 - 10min	>2500	0
TS630C *High initioanl adhesion and strength	pink	75±2	135±5	140 - 160°C	5 - 15min	>100	0
TS630D-H *High initioanl adhesion and strength	pink	75±2	135±5	140 - 160°C	3 - 10min	>800	0

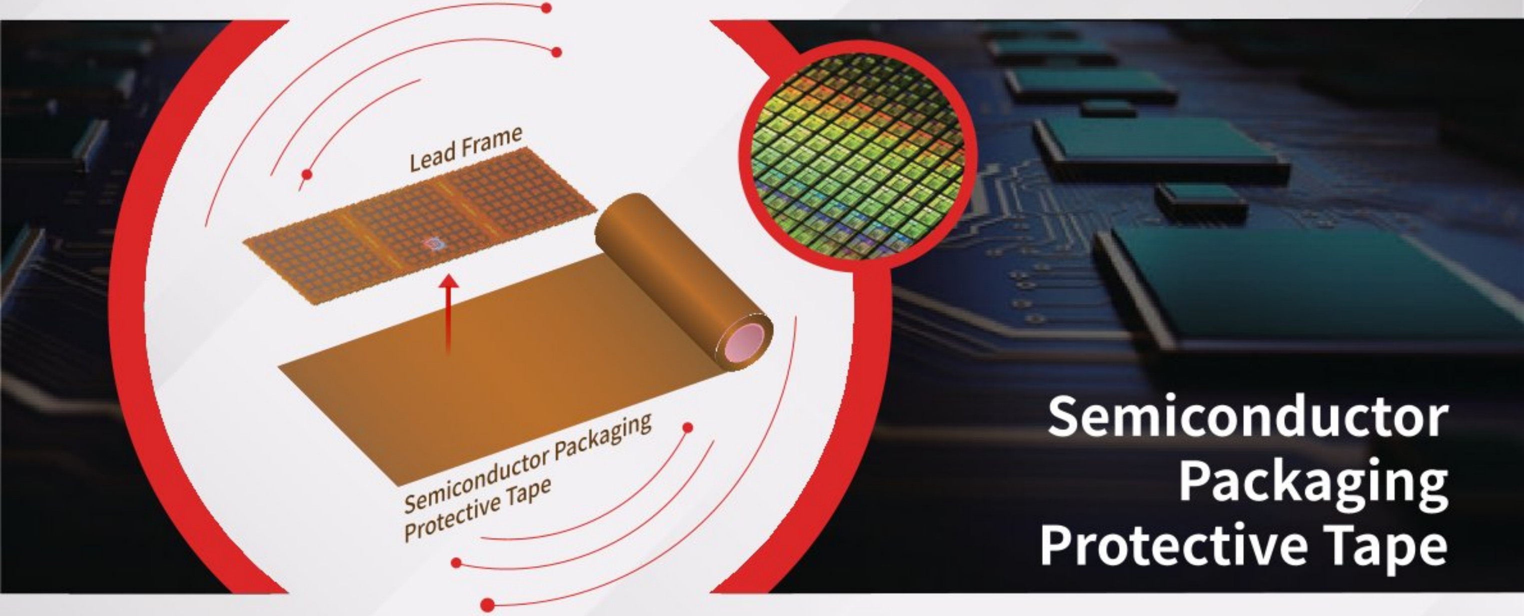
PCB cutting

Sapphire substrate thin grinding

MLCC Dicing

02

SEMICONDUCTOR PACKAGING



Semiconductor Packaging Protective Tape

Semiconductor Packaging Protective Tape

Semiconductor package protection tape is a protective tape with excellent adhesion and high temperature resistance, which is used for fixing and protecting semiconductor chip packages, and can be removed without residue.

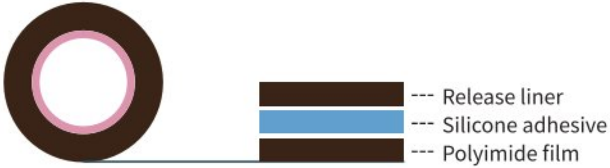
Features

- Uniform material and coating, high precision.
- PI base material, excellent high temperature resistance and good thermal stability.
- No preheating is required during application and peeling; No adhesive residue after the tape is peeled off.
- High degree of cleanliness, no stains and impurities;
- ESD available for high-end requirements.

Application

- The packaging process of semiconductor chips such as QFN is used to fix the lead frame and prevent the leakage of plastic packaging materials;
- High temperature protection, temporary fixation, shielding, chip and film and other processes that require precision protection in the electronic manufacturing process.

Product Structure



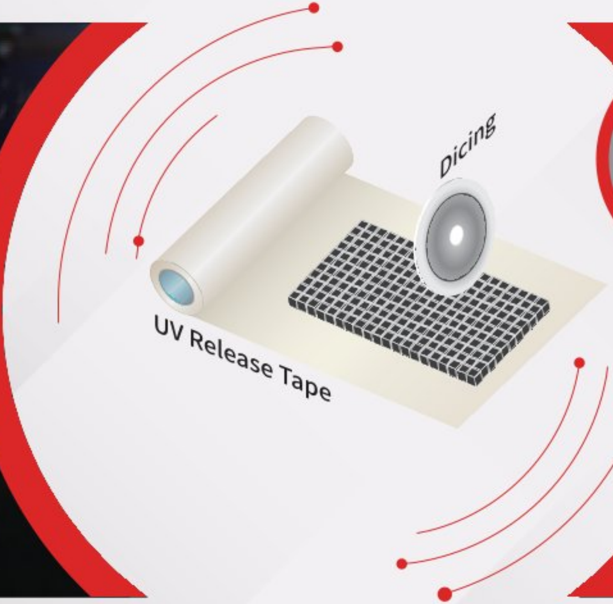
Series Products

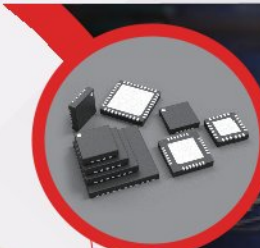
P/N	Backing	Backing thickness (um)	Total thickness (um)	Adhesive	Adhesion to steel (N/25mm)	High temperature resistance	Color
IH810A	PI	25	31	Silicone	0.6±0.2	260°C	Amber
IH810B	PI	25	35	Silicone	4.3±0.5	260°C	Amber
IH810F	PI	25	31	Silicone	0.86±0.3	260°C	Amber

Semiconductor packaging

03

SEMICONDUCTOR PACKAGING

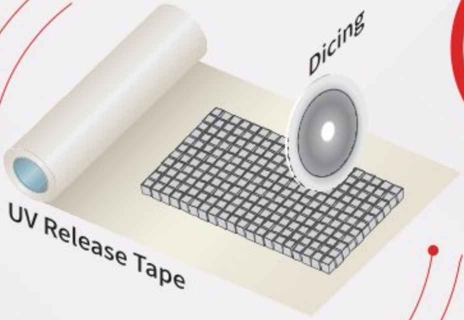




UV Release Tape

04

MINI LED DISPLAY PACKAGING



UV Release Tape

UV Release Tape

UV Release Tape is a kind of anti-static ultraviolet tape, with high initial adhesion, after UV irradiating ,adhesion is greatly decreaed or losed and no adhesive residual after removing.

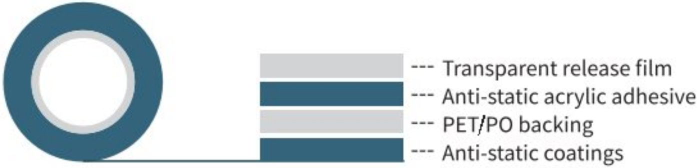
Features

- Excellent anti-static performance.
- High initial adhesion strength, easy removal of components after UV irradiating, no adhesive residual.
- The adhesive layer counteracts the force of slicing and protects the components.

Application

- It can be used for surface protection of cutting and positioning of various silicon packages, components, ceramic capacitors and PCB boards

Construction



Series Products

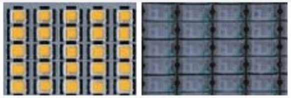
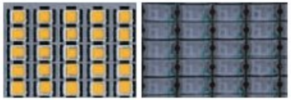
P/N	Backing	Backing thickness (um)	Total thickness (um)	Adhesive	Adhesion to steel (N/25mm)		
					Before UV	Initional adhesion	After UV
UV392E	PO	150±5	162±5	Acrylic	1600	🟥🟥🟥🟥	<7
UV392F	PO	150±5	170±5	Acrylic	2000	🟥🟥🟥🟥	<7
UV391LY	PO	150±5	170±5	Acrylic	2000	🟧🟧🟧	<10
E2-UV395D	PET	50±3	75±5	Acrylic	2200	🟩🟩	<5
UV391PY	PO	150±5	170±5	Acrylic	2500	🟧🟧🟧	<10
E2-UV396E	PET	50±3	75±5	Acrylic	2500	🟩🟩	<5
UV396US	PET	100±5	120±5	Acrylic	2600	🟩🟩	<7

Wafer dicing

🟩🟩 Green: low initial adhesion

🟧🟧 Yellow: middle initial

🟥🟥 Red: high initial adhesion

P/N	Features	Application
UV392E	• PO backing, suitable for EMC and QFN package cutting, with high initial adhesion; • Suitable for the process of viscosity reduction after a certain high temperature	
UV392F		
UV391LY	• The backing of the tape and the adhesive surface are anti-static, good adhesion, not easy to caise bubbles, after UV Irradiating, nearly no viscosity, easy to peel; • Suitable for anti-static materials and special film temporary cutting protection and transfer	
E2-UV395D	• The backing of the tape and the adhesive are anti-static, good adhesion, high viscosity, not easy to cause bubbles, after UV Irradiating, nearly no viscosity, easy to peel; • Suitable for anti-static materials and special film temporary cutting protection and transfer.	
UV391PY	• PO backing, suitable for EMC and QFN package cutting, with certain initial adhesion; • Suitable for the process of viscosity reduction after a certain high temperature.	
E2-UV396E	• The backing of the tape and the adhesive are anti-static, good adhesion, high viscosity, not easy to cause bubbles, after UV Irradiating, nearly no viscosity, easy to peel; • Suitable for anti-static materials and special film temporary cutting protection and transfer.	
UV396US	• PET backing, good stiffness, nearly no viscosity after UV Irradiating; • Suitable for cutting glass and thick ceramics, with certain initial adhesion.	

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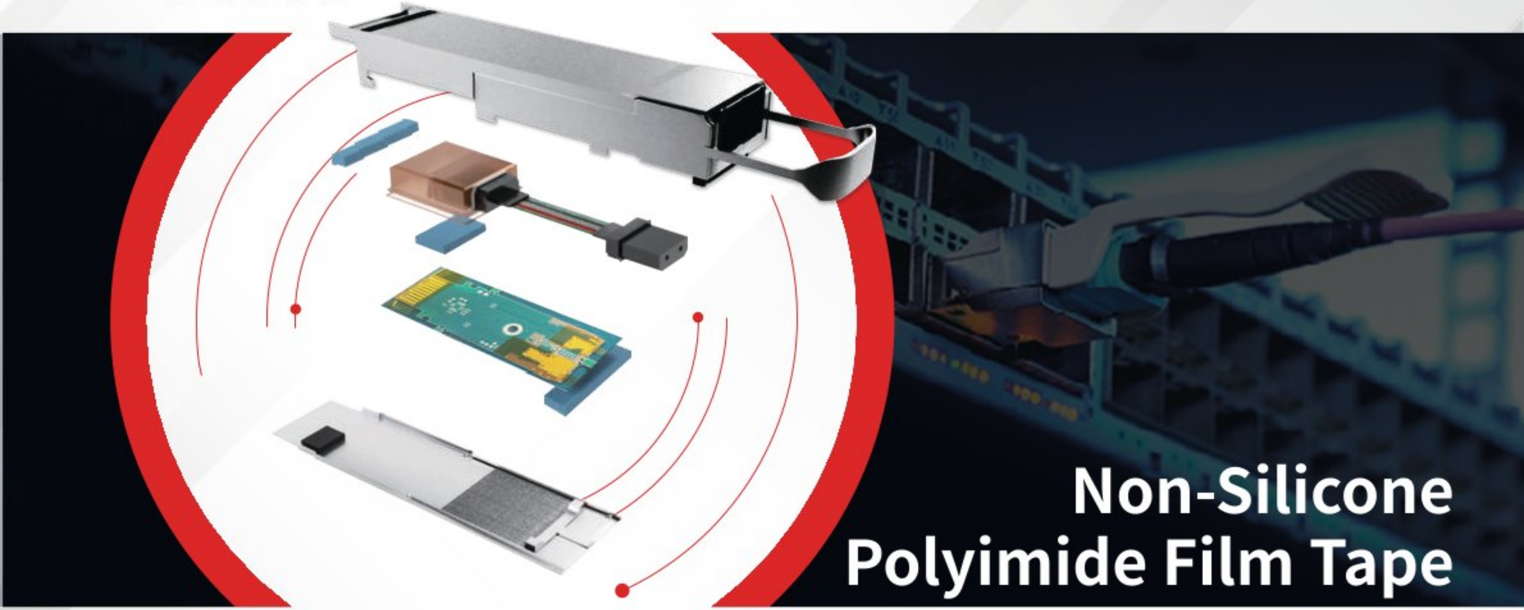
OPTICAL MODULE PACKAGING



Non-Silicone Polyimide Film Tape

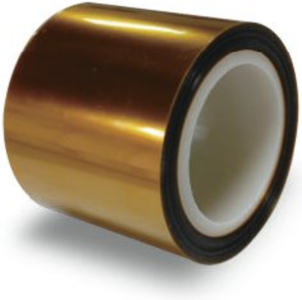
P/N	Backing	Backing thickness (um)	Total thickness (um)	Release film thickness (um)	Adhesion to steel (N/25mm)	High temperature resistance	Color
IH890S	PI	25	35	50	1.8 - 2.6	260°C*10min	Amber
IH899BF	PI	25	42	75	1.1 - 2.3	260°C*10min	Amber (Blue Release Film)

Non-Silicone Polyimide Film Tape

Non-silicone high temperature resistant tape is based on PI, the surface is evenly coated with special non-silicone pressure sensitive adhesive, which can meet the specific requirements of the production process, especially suitable for electronic production with high restrictions on silicone contamination.

Features

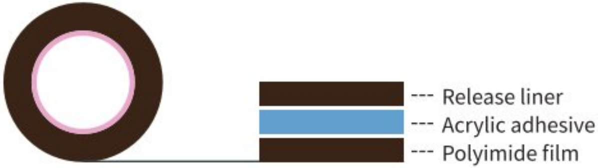
- Non-silicone design , eliminating the hidden danger of electronic device binding caused by silicon pollution.
- Good Initial visocity easy for instant bonding.
- The base substrate adopts double-stretched PI, which has good tensile strength and high temperature flatness.
- High temperature resistance: can be used for core process, binding, high temperature masking and other high precision applications. Easy to remove, no glue residue.



Application

- Applied to the SMT field with high requirements for binding shielding protection. such as automobile Vehicle electronic control systems, laser radar and optical communication modules, MEMS packaging, semiconductor packaging technology, lead frame protection, to prevent resin leakage.

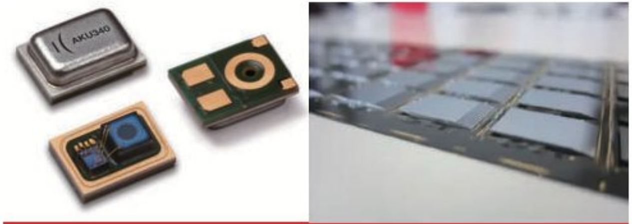
Construction



Series Products

P/N	Backing	Backing thickness (um)	Total thickness (um)	Release film thickness (um)	Adhesion to steel (N/25mm)	High temperature resistance	Color
IH899BF	PI	25	42	75	1.1 - 2.3	260°C*10min	Amber (Blue Release Film)


Automotive Electronics



Semiconductor Packaging

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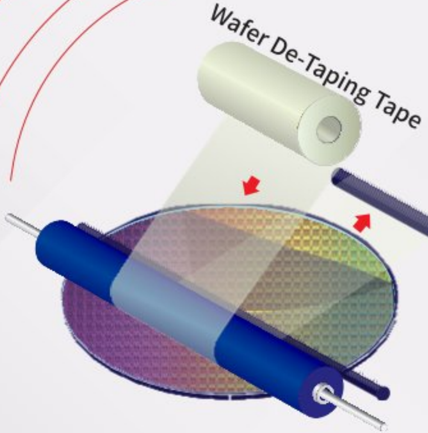
SEMICONDUCTOR PACKAGING



Wafer De-Taping Tape

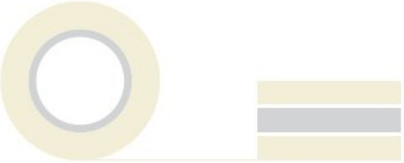
Wafer De-Taping Tape

Wafer De-Taping Tape is polyester film backed with releasing coating and coated with rubber adhesive. It has excellent adhesion to PE/PVC and with good resistance of high temperature. It is ideal to peel the BG tape from wafer, glass and silicon or other temporary fixing tape.

Features

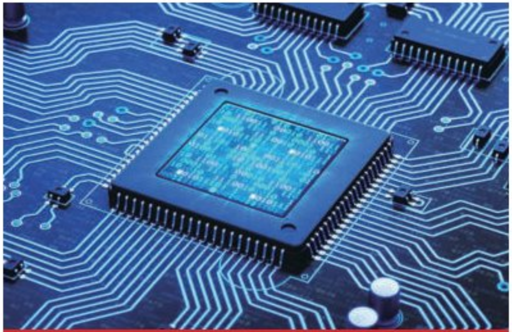
- Excellent instant sticking.
- Anti-static performance.
- High temperature removal without adhesive residual.

Construction


--- Rubber Adhesive
--- Polyester film
--- Releasing coating

Series Products

P/N	Backing	Backing thickness (um)	Total thickness (um)	Adhesive	Surface Resistance (ohms)	Adhesion to steel (N/25mm)	High temperature resistance (°C)	Color
F914WT	PET	50	80	Rubber	/	⩾17	100°C*10min	Transparent
E1-F921K	PET	38	65	Acrylic	10^10	⩾18	Ordinary Temperature	Grey Transparent



Semiconductor packaging

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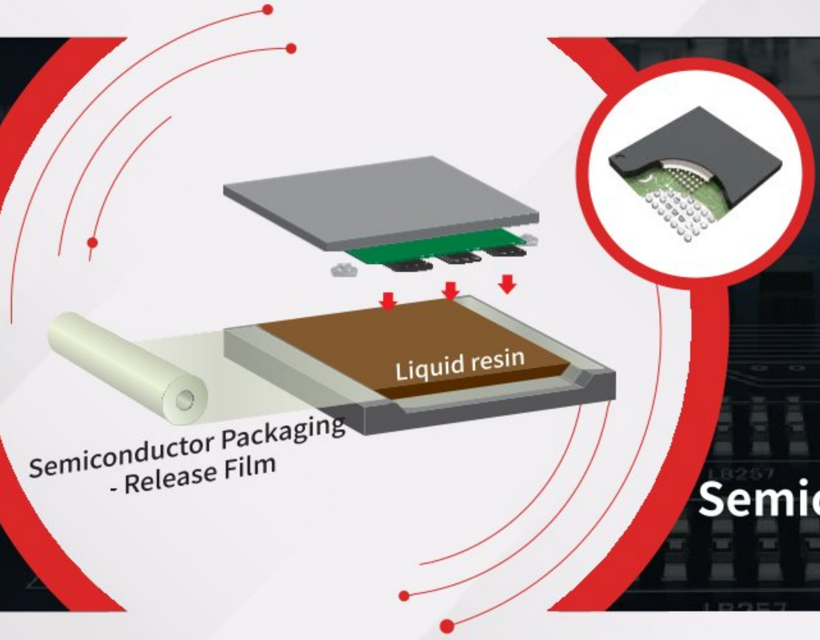
SEMICONDUCTOR PACKAGING



Semiconductor Packaging
- Release Film

Semiconductor Packaging- Release Film

This release film is made of ultra-high quality fluoride as the base material. It has the characteristics of low surface energy, high melting point, high strength, high elongation etc. It is suitable for the plastic sealing release of semiconductor and LED industries to solve the problems of knife marks, specks and frame overflow on the surface of plastic sealing products.

Features

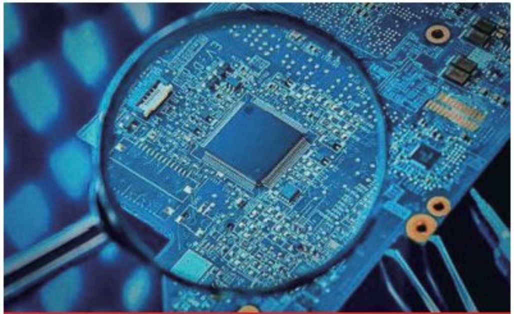
- Excellent release ability for different material surfaces.
- High tensile strength and elongation at high temperature, supporting the accurate coating of complex molds with large height difference.
- Melting point 260°C, can work at 160°C for long-term; polished and frosted surfaces available.
- Solve the problem of material overflow in the process of plastic sealing.

Application

- Semiconductor QFN /BGA/ CSP and other plastic sealing release.
- High-power ceramic packaged LED, COB Mini LED in liquid molding package release.

Series Products

P/N	Backing	Backing thickness (um)	Surface Resistance (um)	Tensile Strength (Mpa)	Enlongation at Break (%)	High Temperature Resistance (°C)	Flame Retardant Rating
BR-350M0Y (series)	ETFE	25/50/60/75	＜0.04	48	300	160	V0



Semiconductor packaging

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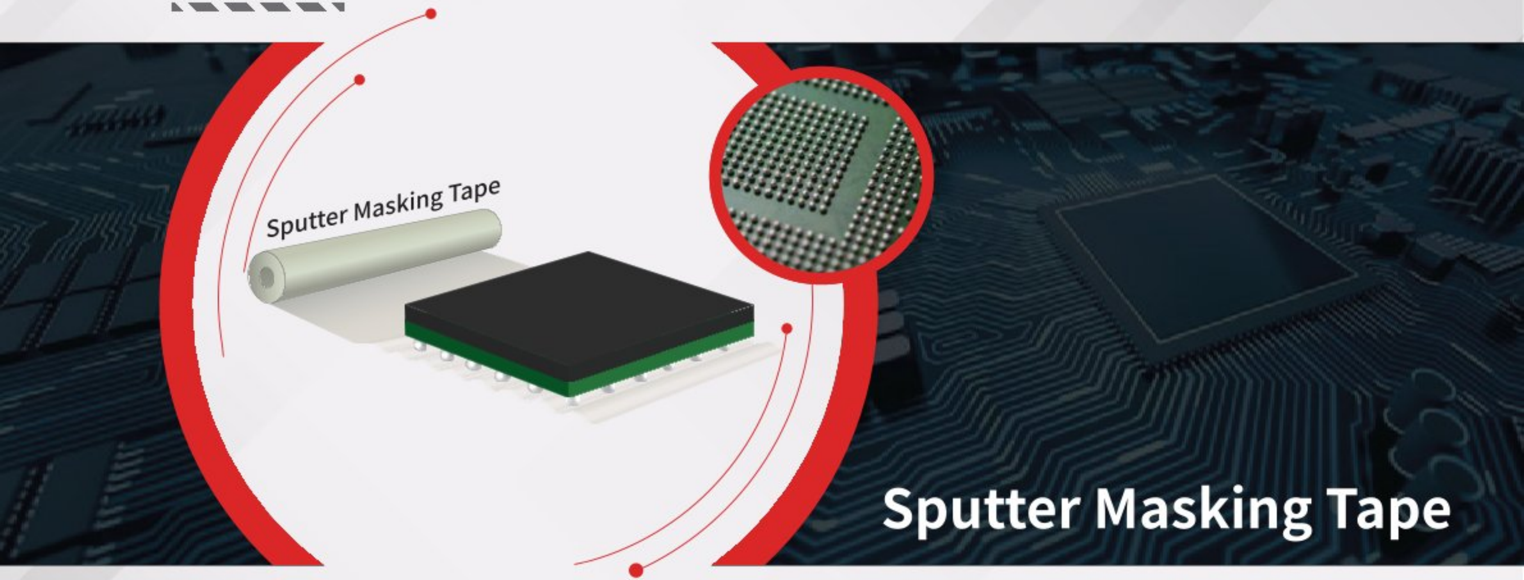
SEMICONDUCTOR PACKAGING



Sputter Masking Tape

Construction

--- Clear release liner

--- UV adhesive 30µm

--- Soft layer 70µm

--- Polyester film 30µm

Releasing Condition

- UV light：300mj/cm²

Features

- When exposed to UV light, it's easy to peel off and has a soft buffer layer,good adhesion flexibility, with heat resistance.

Substrate	Condition	Test Value (g/25mm)	Remark
SUS	Before UV	960	180°peel
	After UV	20	180°peel (200mm/min)

Series Products

SHENZHEN KHJ TECHNOLOGY CO.,LTD

P/N	Backing	Construction			Adhesion to steel (g/inch)	Features
		Backing thickness (um)	Adhesive thickness (um)	Release film		
E1-IH803	PI	25	30	50#	⩾400	Silicone adhesive, ESD, Suitable for large size BGA during high temperature processing, Resistant up to 260°C.
E1-IH803H	PI	25	30	50#	⩾400	Silicone adhesive, ESD, Suitable for large size BGA during high temperature processing, Resistant up to 290°C.
IH890SY	PI	25	20	50#	370	Non-silicone adhesive, low adhesion, Special PI, Good thermal stability, Suitable for small size BGA, high temperature resistance up to 260°C*10min, removal without residual after 1 hour. No yellowing.
UV408CP	PET compound	100	30	50#	⩾900 After UV<20g	When exposed to UV light, its easy to peel off and has a soft buffer layer, Good adhesion flexibility, with heat resistance.

SHENZHEN KHJ TECHNOLOGY CO., LTD

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