



Guangdong Polomo New Materials Technology Co., Ltd

Touch bonding material technology leader in
Intelligent display

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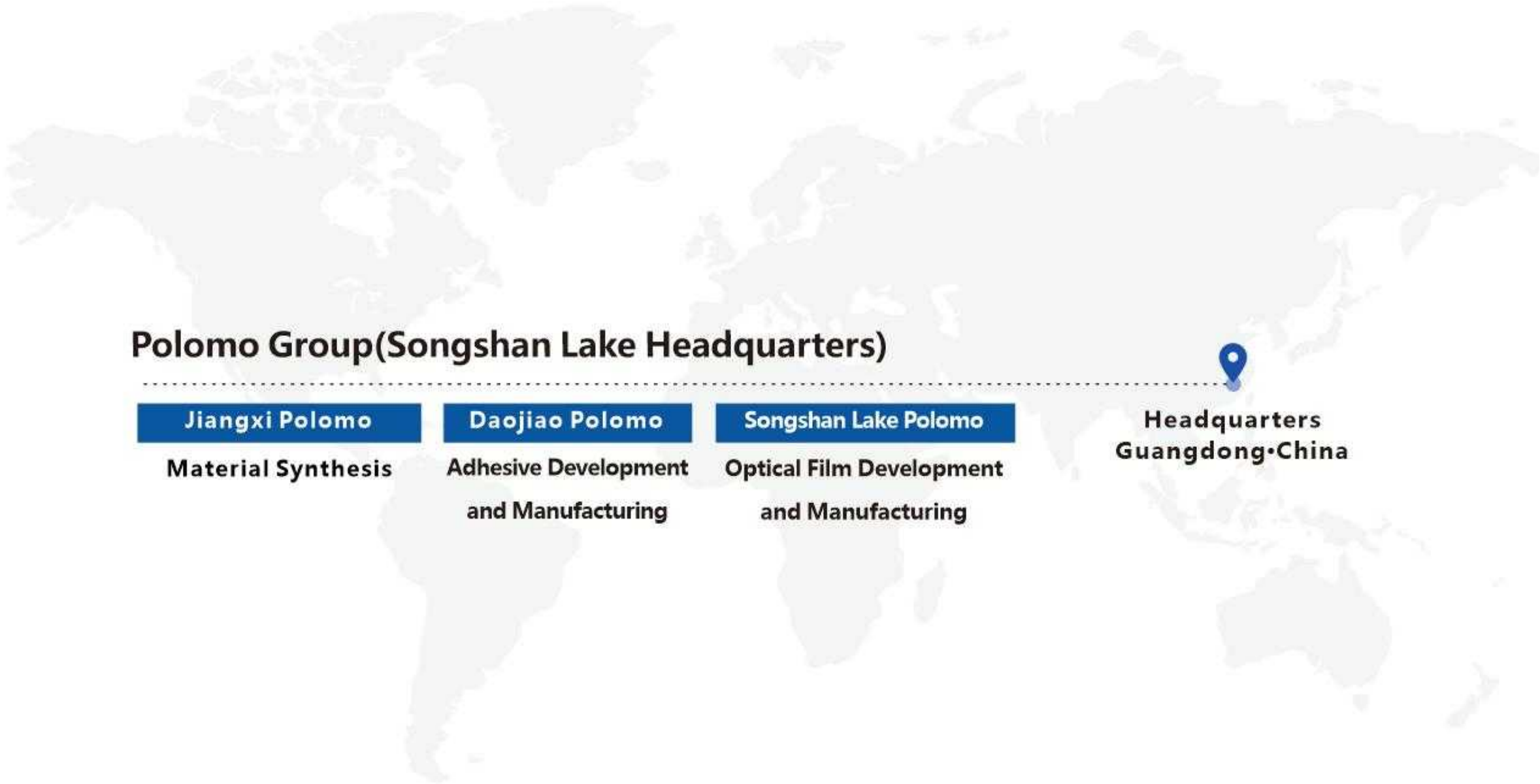
01 | Company Overview

Company introduction



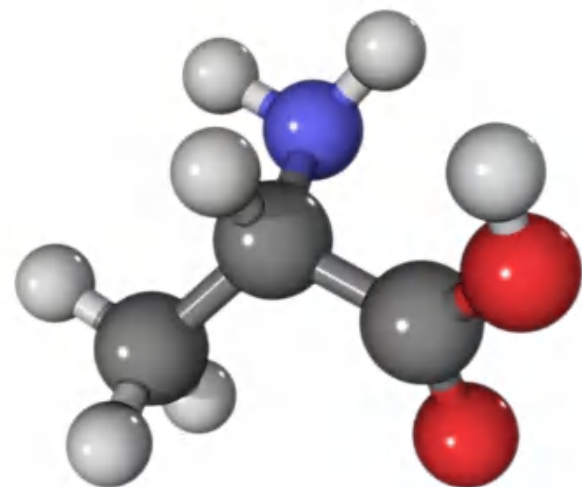
Since its establishment in 2002, Polomo has adhered to its mission of "advancing humanity through continuous innovation in chemical technology." Polomo is dedicated to the R&D, manufacturing, and sales of high-performance polymer materials, specializing in electronic industrial sealants, adhesives, and specialty polymer materials.

Since 2006, Polomo have focused on display sealants and optical bonding materials. With strong expertise in this field, Polomo has become a leading provider of full-range optical bonding solutions in China. Polomo's OCR and OCA products are widely trusted by key industry clients. Polomo's sales network covers Europe, the U.S., Japan, South Korea, Southeast Asia, and China. We are a trusted partner for smart touch display bonding solutions, known for our deep technical know-how and strong market competitiveness.



Material Synthesis Capabilities

- Independent material synthesis ensures stable raw material supply;
- Customizable special materials to meet diverse needs;
- Leading material synthesis technology enhances product performance and quality.



Adhesive Development and Manufacturing

- With an adhesive R&D team, mastering core formula technologies;
- Adhesive products offer excellent performance, such as high adhesion and strong weather resistance;
- Custom adhesive development for different optical products.



Optical Film Development and Manufacturing

- Possess a complete technical system for optical film R&D and manufacturing;
- Optical film products offer excellent optical performance;
- Able to quickly respond to the market and launch new optical film products.



Comprehensive Advantages

- Integrated supply chain to reduce costs and improve production efficiency;
- Strong R&D capabilities, continuously launching innovative products;
- Product quality is controllable, ensuring reliable quality;
- Providing one-stop solutions to meet overall needs.



Core Competency

Innovation Leads the Future

20 Major Milestones in the Group's 20 Years

2002-2007

Company Establishment

Polomo was established and focused on the R&D, production, and application of UV adhesives for displays.

ISO9001&ISO14001 certificate

Certified with ISO9001 & ISO14001, the Daojiao factory was put into operation.

2008-2014

High-tech Enterprise

Awarded with the title of "National High-tech Enterprise"

Mass production of OCR

- Successfully developed and mass-produced Acrylic TP Bonding OCR (G+G)
- Successfully mass-produced full bonding LOCA (OCR) products.

Mass production of scratch-type liquid optical adhesive

- Successfully mass-produced a new generation of scratch-type liquid optical adhesive

2016-2020

Mass production of QDEF sealant

- Successfully developed the UV cured QLED sealant and conducted mass production of QDEF sealant

Certified with IATF16949

2021-2024

Songshan Lake Polomo was established

- Songshan Lake Polomo wholly- owned subsidiary was established

Mass production of silicone OCA

- First in China to develop and mass-produce silicone OCA

Silicone OCA sales exceeded 10 million pieces

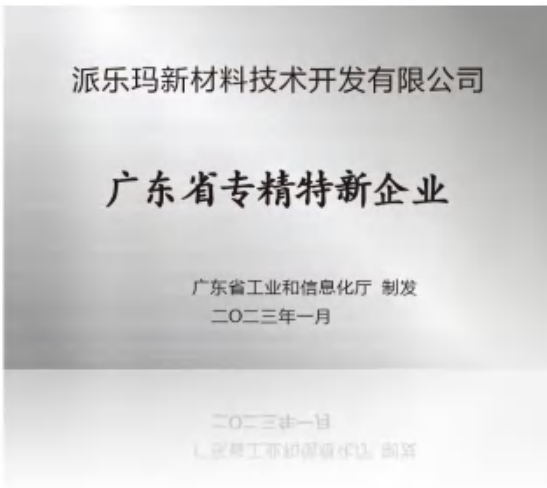
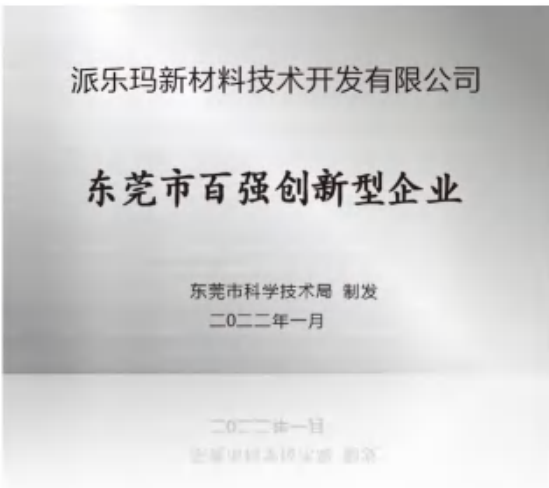
60+

Domestic and International
Invention Patents

70+

Guangdong High-tech Product
Certificate

Deeply rooted in its field for over 20 years, Polomo has earned wide recognition and was honored as **one of the Top 100 Innovative Enterprises in 2022**



Type	Patent Name	Application No.
OCR	UV-moisture dual-cure liquid optical adhesive, its preparation method, and application	2015102939502
	UV-curable liquid optical adhesive, its preparation method, and application	201510294004X
	A thermosetting liquid optical adhesive composition and its application	2020100464904
	A borderless full-lamination frame adhesive, a borderless full-lamination surface adhesive, and a display panel	2020100465131
	A silicone liquid optical adhesive and its usage method	2020100468888
	A UV-curable liquid optical adhesive, its preparation method, and application	2020106411690
	An optical gap filling adhesive, its preparation method, and application	202011482276X
	A UV-curable adhesive, its preparation method, and application	2020116073351
	A -55°C low-temperature resistant OCR optical adhesive, its preparation method, and application	2023109074264
	(Japan)A -55°C low-temperature resistant OCR optical adhesive, its preparation method, and application	2023-212537
	Preparation and application of a uniform molding, high-adhesion MiniLED polysiloxane encapsulation adhesive	202311048902.8
	A fully-laminated UV-curable liquid silicone optical adhesive, containing a display panel and its preparation method	2020100465112
	A liquid silicone optical adhesive, its preparation method, and application	2020111490457
	A UV-blocking silicone OCR optical adhesive, its preparation method, and application	2023104459612
	A silicone-modified acrylic polyurethane prepolymer, an optical adhesive composition, an optical adhesive, and its preparation method and application	2023118081089
OCA	A flexible silicone optical adhesive composition, a silicone optical transparent adhesive film and its application	2023116709356
	A silicone adhesive, silicone OCA, and their preparation method and application	2020116179568
	An online tension correction mechanism	2023220209527
	An eco-friendly UV-resistant OCA optical adhesive and its preparation method	2023109551051
	A testing method for release film used in silicone OCA	202311060722.1
	Anti-blue light optical adhesive, OCA optical adhesive, and their preparation method and application	202311068884X
	A silicone OCA, a low modulus silicone adhesive, and their preparation method and application	202410413254X
	An optical adhesive composition, integrated black OCA optical adhesive tape, and its preparation method and application	2024104607375
	A silicone modified polyester type polyurethane acrylate prepolymer, its preparation method, and the resulting OCA optical adhesive.	202310785211X
	A new OCA die-cutting process	2023109442694

➤ Basic physical property

ZMD-2 Electronic Densitometer, Titration Method pH Meter, DV-C Digital Viscometer, Karl Fischer Moisture Titrator, Shore Hardness Testers (OOO, OO, A, D), Penetrometer, Light Transmittance and Haze Meter-110, Colorimeter, Spectrophotometer, UV-Vis Spectrophotometer, Abbe Refractometer, Light Transmittance and Haze Tester, High-Precision Mirror Microscope, VHX Digital Microscope, Digital LCR Meter, Dielectric Constant Tester, Surface Resistance Tester



➤ Weather resistance

Thermal Shock Tester, Xenon lamp weather resistance tester, Constant Temperature and Humidity Chamber, Low-Temperature Storage Freezer / Solvent Resistance Test Chamber, Salt Spray Tester



➤ Verification equipment

EDXRF, FT-IR, GC-MS, GPC, DSC, TMA, Rheometer, TGA, Peel Strength Tester, Universal Tensile Tester, High and Low Temperature Tensile Tester;



Partial Equipment

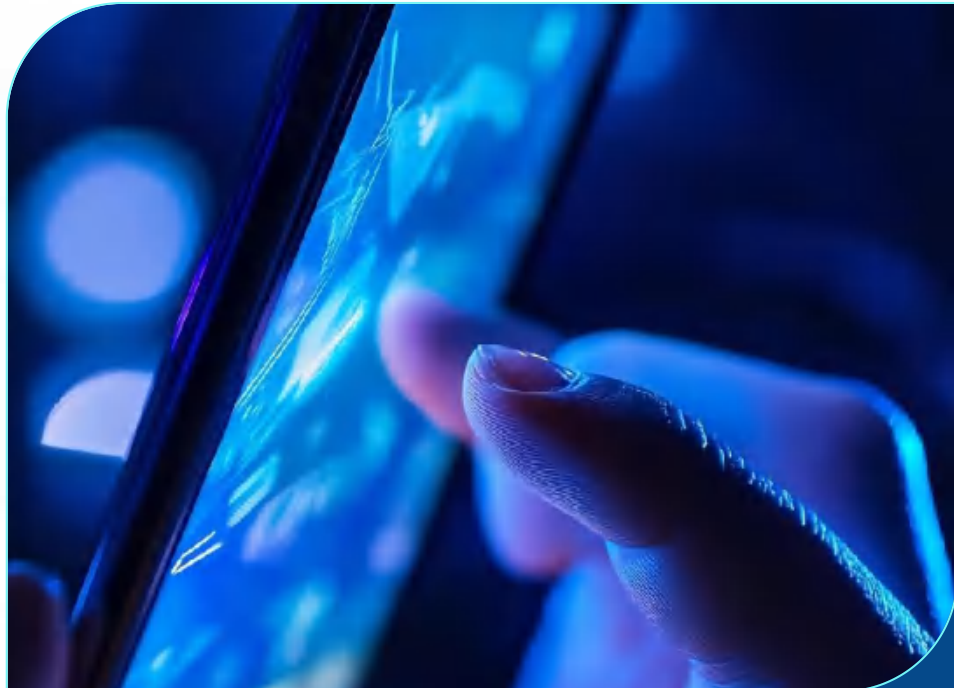
Quality Assurance Template



item	target	actual	item	target	actual	item	target	actual	item	target	actual	item	target	actual
First design review pass rate	> 85%	≥90%	Pass rate of incoming material	> 99%	≥99.5%	First article pass rate	100%	100%	Response to customers	principle of 2485	meet the principle of 2485	Customer complaint management follow-up closed loop rate	100%	100%
Design stage Bug close rate	> 95%	≥98.5%	Abnormality of material release	< 500ppm	≤100PPM	Process pass rate	100%	100%	Customer complaint response closed loop rate	100%	100%	Customer satisfaction	> 98%	≥99%
Transfer to mass production review pass rate	> 95%	≥98%	Major material quality event	0/month	≤0/month	Shipping inspection pass rate	100%	≥99.8%	Customer demand conversion rate	100%	100%	Client application pass-through rate	> 99.97%	99.98%
Close rate in R&D stage when transferred to mass production	> 95%	≥98%				Major process quality events	0/month	≤0/month						

02 | Product introduction

Full Range of Optical Bonding Materials



Optical Bonding Material

- Optical bonding OCA(Silicone)
- Optical bonding OCA(Acrylic)
- Optical bonding OCR(Silicone)
- Optical bonding OCR(Acrylic)



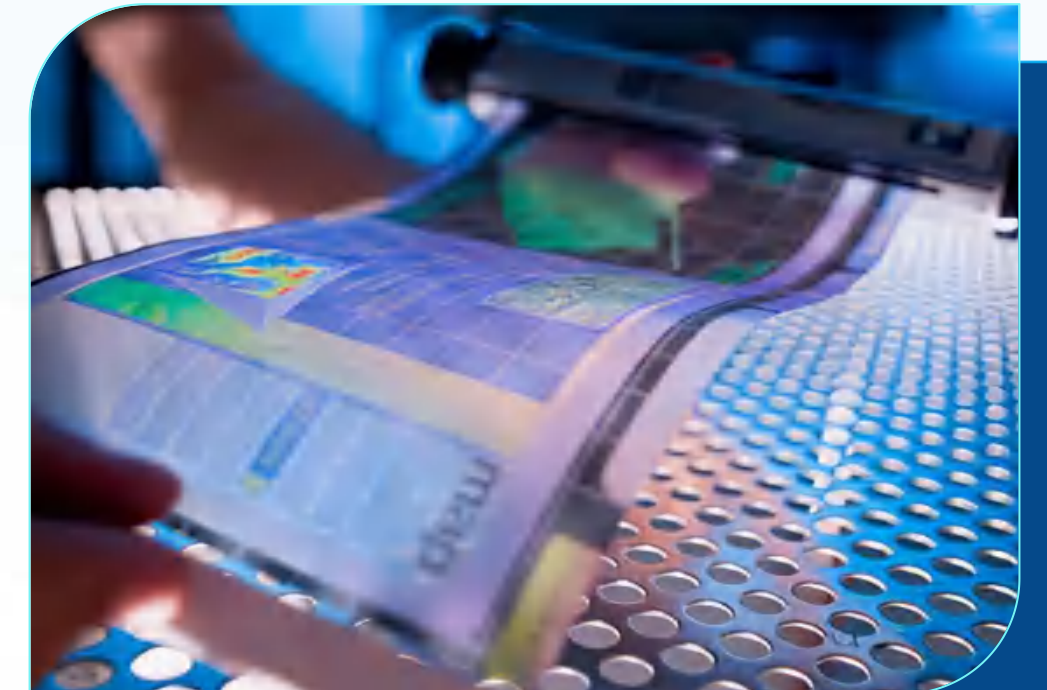
Curved and Foldable Flexible Bonding Material

- Protective adhesive film for foldable displays
- Foldable OCA



MLED Direct-display/Backlight Encapsulation Material

- COB/MIP encapsulation adhesive film



Display Sealing Material

- LCD box sealing adhesive
- OLED sealing adhesive
- E-paper sealing adhesive

Polomo holds core capabilities across the entire value chain—from key material synthesis, adhesive R&D and manufacturing, to OCA coating and precision die-cutting. **With a broad range of application fields and a proven track record of mass production, Polomo delivers trusted solutions for diverse industry needs.**

•Optical Bonding Material OCR

Silicone series

Product application range:

- Vehicle TP lamination, vehicle full lamination
- Aviation instrument, industrial control, outdoor, security, oversized lamination
- Smart home, consumer goods

Product process

- Dispensing
- Scraping
- Injecting
- Stencil printing
- Frame+surface dispensing series
- Slit coating series

Acrylic series

Product application range:

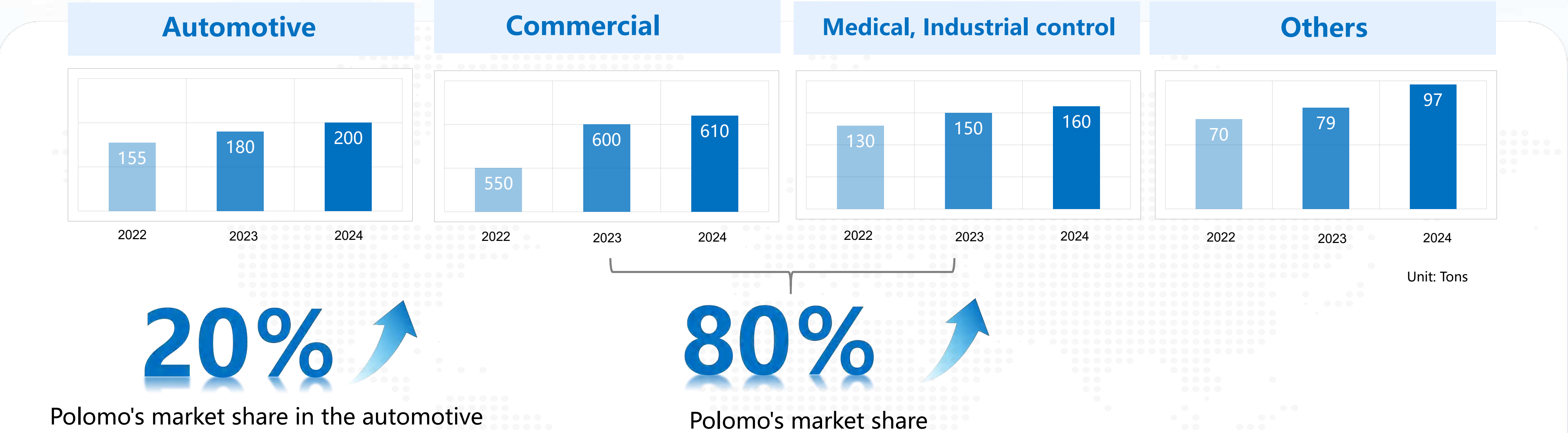
- Vehicle TP lamination, vehicle full lamination
- Aviation instrument, outdoor, security
- Smart home, consumer goods

Model	US106	US107	US108	US109	US111	US118	US207	US208	DM606	DM607	DM608
Material category	Silicone series										
Components	AB double liquid type				AB double liquid type	Single liquid type、AB double liquid type				Single type	
Application category	Dispensing	Dispensing/scraping	Dispensing/injecting	Dispensing	Coating	Dispensing	Dispensing/slit coating	Stencil printing	Dispensing	Caulking / Damming adhesive	Damming / Reinforcing adhesive
Curing process	Heat curing							UV delay+热			

Model	G35H	PG-30	M35	DM50	DM40	S400M	S400H
Material category	Acrylic series						
Application category	G+G	G+IML	TP+LCM	DAM glue	DAM胶	TP+LCM	
Curing process	Dispensing					Slit coating	



•Sales Performance and Market Distribution Chart (OCR)



Leading the industry

Top in full-category bonding OCR shipment volume, among the top three in automotive full-bonding OCR shipments. Largest raw material usage in the industry with strong bargaining power, strict standards, and stable raw material supply.

•Optical Bonding Material OCA

Silicone series

Product application range:

Automotive, aviation and other high-end demand lamination

Product process

- PSA technology、pressure sensitive process, vacuum lamination

Acrylic series

Product application range:

Automotive, aircraft instruments and other high-end demand lamination

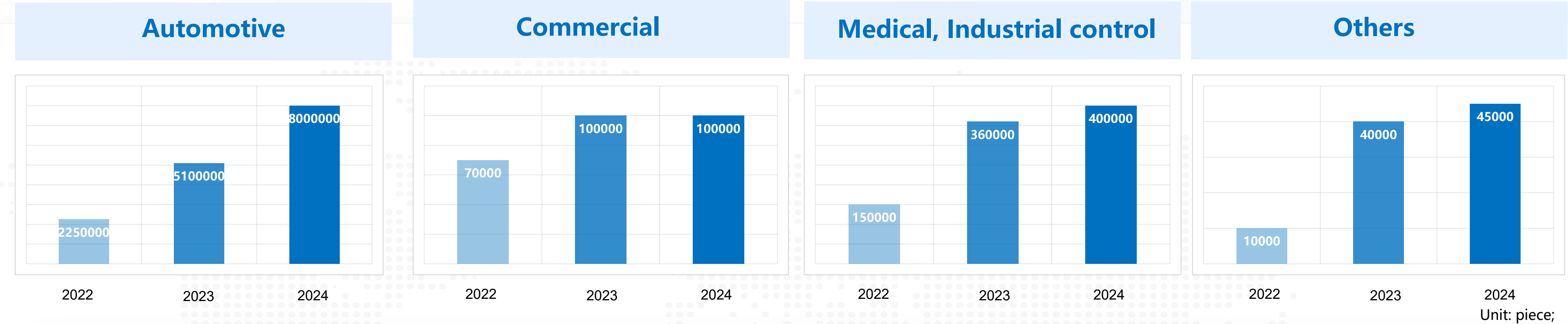
Model	TS108	TS109	TS125	TM35	TG35
Material category	Silicone			Acrylic(Functional film)	
Application category	Automotive display	Bendable OLED display Automotive flat/ curved & Irregular displays	Flexible OLED display	Automotive/indutrial control display	Indutrial control /consumer electronics

Polomo optical bonding OCA is a new series of products developed on the basis of liquid optical adhesive OCR, which has excellent adhesion and filling performance, good yellowing resistance, high reliability and solving the problem of high-temperature delay bubbles.

It is mainly used for interlayer lamination of display screens. The thickness of OCA raw materials that can be coated from 20um~2000um;



•Sales Performance and Market Distribution Chart (OCA)

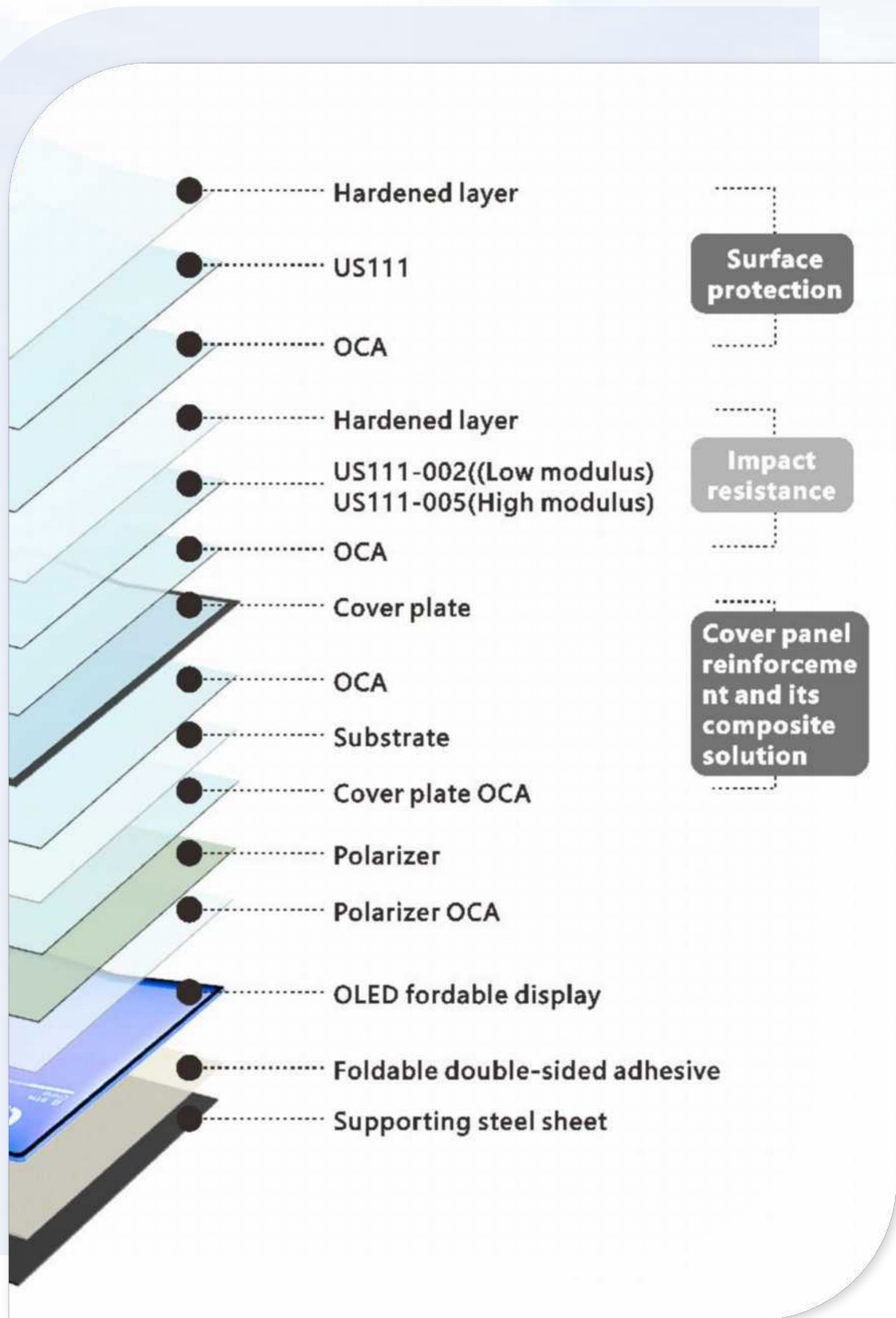


Industry
Leading

Polomo's silicone OCA leads the industry with a high market share and abundant automotive bonding cases

In-house
developed

From resin synthesis to adhesive production, coating, die-cutting, and packaging, OCA offers end-to-end solutions. With in-house R&D for upstream materials and comprehensive expertise in downstream bonding applications, Polomo maintains cost advantages.



•Curved and Foldable Flexible Bonding Material

Folable display protective adhesive film (Non-Newtonian material)

Flexible impact protection is a critical element of flexible displays. Impact-resistant silicone can be coated directly onto substrates such as UTG, CPI, or PET, providing strong adhesion without the need for additional OCA. Once cured, the film delivers effective impact resistance.

Model	Application type	Compon ent	Modulus	Dissipation factor	Tg point	Refractive index	Hardness	Elongation at break %	Tension strength	PET crosshatch adhesion	50% linear deformation stress
US111-001	Inward folding	Two compone nt	85Kpa	0.18	-45℃	1.41	13A	1900%	1.8Mpa	No delamination	35Kpa
US111-002	Outward folding	Two compone nt	19000Kpa	0.12	-60℃	1.41	70A	450%	5Mpa	No delamination	/
US111-005		Two compone nt	28000Kpa	0.12	-60℃	1.41	75A	450%	7Mpa	No delamination	/

Folable OCA (Non-Newtonian material)

Flexible bonding is a key component of flexible displays. Polomo foldable OCA offers stable modulus across high and low temperatures, consistent adhesion strength, and excellent wettability for easy bonding.

Model	Status	Thickness (um)	Easy liner thickness (um)	Heavy liner thickness (um)	Release force of easy liner	Release force of heavy liner	Peel force on HC side	Bending test	Modul us	Tg point	Creep recovery	Stress relaxation
TS125-030	Solid sheet	30±3	50	75	2-5	2-5	480gf/25mm (Instant) 660gf/25mm (168h)	> 200,000 cycles	37.5Kpa	< - 30℃	83.7%	75.2%
TS125-050	Solid sheet	50±3	50	75	10-15	10-15	600gf/25mm (Instant) 750gf/25mm (168h)	> 200,000 cycles	37.5Kpa	< - 30℃	83.7%	75.2%

•MLED Direct-display/Backlight Encapsulation Material

Mini/Micro LED encapsulation adhesive film is a series of thermosetting semi-solid products designed for direct-display Mini/Micro LED module encapsulation. It is mainly intended to replace traditional molding processes and supports various bonding methods such as thermo-compression and roller lamination. The product offers excellent adhesion to substrates like PCB, glass, and ink, and can be customized based on the customer's product structure.



Highly Adaptable to Various LED Board Specifications:
Wide application range, versatile functionality, and high lamination yield.



Excellent Adhesion Performance:
Provides strong adhesion to substrates such as PCB, LED chips, glass, and metal.

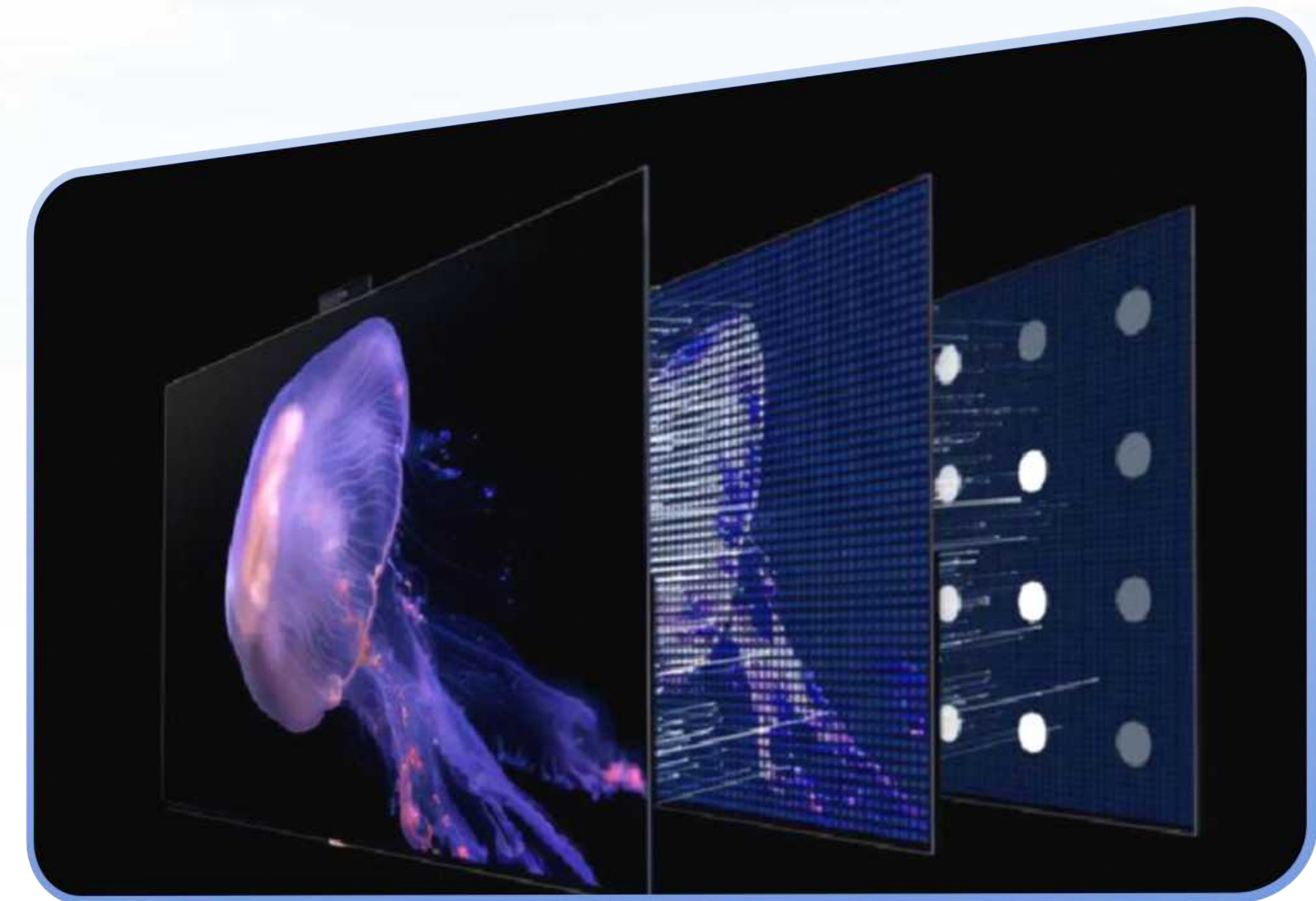


Excellent Optical Properties:
High transmittance, high haze, low yellowing, and high refractive index.



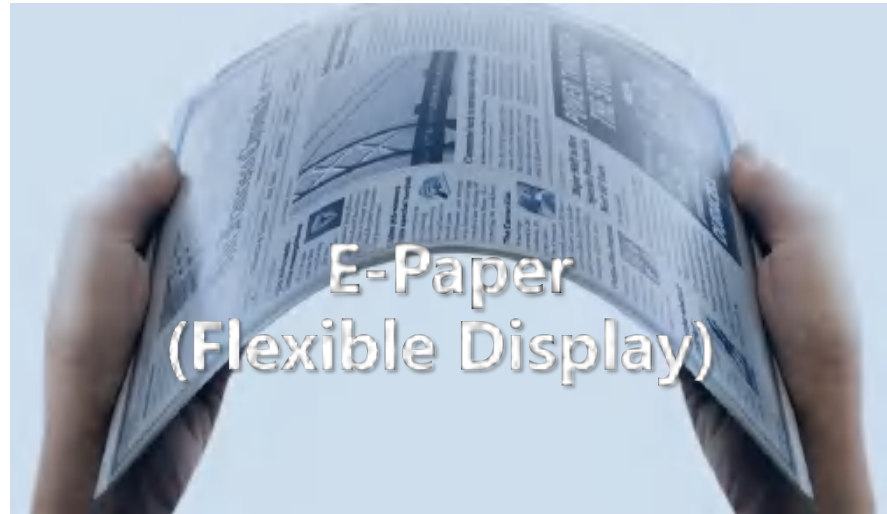
Outstanding Reliability in Extreme Environments:
Optical and mechanical stability with low risk of LED failure (dead lights).

Model	TE201	TE203	TE205
Applicable products	High contrast products	Standard products	Rental/Outdoor
Features	Strong covering ability	High transmittance, high haze	High reliability, texture
Application scenarios	Cinema, meeting room	Advertising	Stage performance



•Display Sealing Materials

Name	LCD box sealant	OLED	E-paper	Edge sealant	Corner bonding adhesive	FPC reinforcement adhesive	ITO protective adhesive
Model	·EP1131 ·EP1132	·UE7OL ·UE50	UE80F	UV1335	·UV1231 ·UV1232 ·UV1235	·UV1311 ·UV1235	·UV1010G/T



Foldable silicone OCA

Minimize the modulus difference across temperature extremes to reduce opening/closing force at low temperatures and improve adhesion stability.

Functional OCA

- Semi permeable OCA
- UV-blocking OCA
- Colorful OCA

Other functional films

- Automotive 3A films
- Flexible encapsulation film for photovoltaic cells

New Bonding Materials

Ink-jet printing

- Adhesive Layer Thinning
- Ideal for Different Shaped Displays

High/Low RI Silicone OCR

- RI > 1.6 (UD)
- RI < 1.4

Structural adhesive

- Fast-curing with excellent weather resistance and superior bonding strength

They all choose Polomo

Terminal customers:



Optical lamination:



Sealant:





THANKS!

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