

BAOSHENGDA

Advanced HMI & Functional Film Solutions

Custom Graphic Overlay & Film Panel

PET / PC / PMMA overlays for industrial, medical, automotive and electronic HMI applications



1989

since
Manufacturing experience

PET/PC

for overlays
Material options

Dead-front

available
Hidden window effects

Global

project-based
B2B support

Custom Graphic Overlay and Film Panel

Baoshengda manufactures custom graphic overlays and film panels for industrial control equipment, medical devices, automotive electronics, instruments, home appliances and electronic HMI interfaces.

Our overlay solutions combine PET, PC, PMMA or customized film materials with precision reverse printing, transparent windows, adhesive backing, surface texture options and dead-front display effects.



Typical product role

- Top visual and protective HMI layer
- Carries icons, windows, logos and function labels
- Protects printing through reverse screen printing
- Supports adhesive bonding to housings or switch assemblies

Main Advantages

Durable reverse printing

Graphics are printed on the back side of the film to reduce wear during operation.

Custom display windows

Transparent, translucent and dead-front windows can be designed for LCD, LED or backlit icons.

Surface finish options

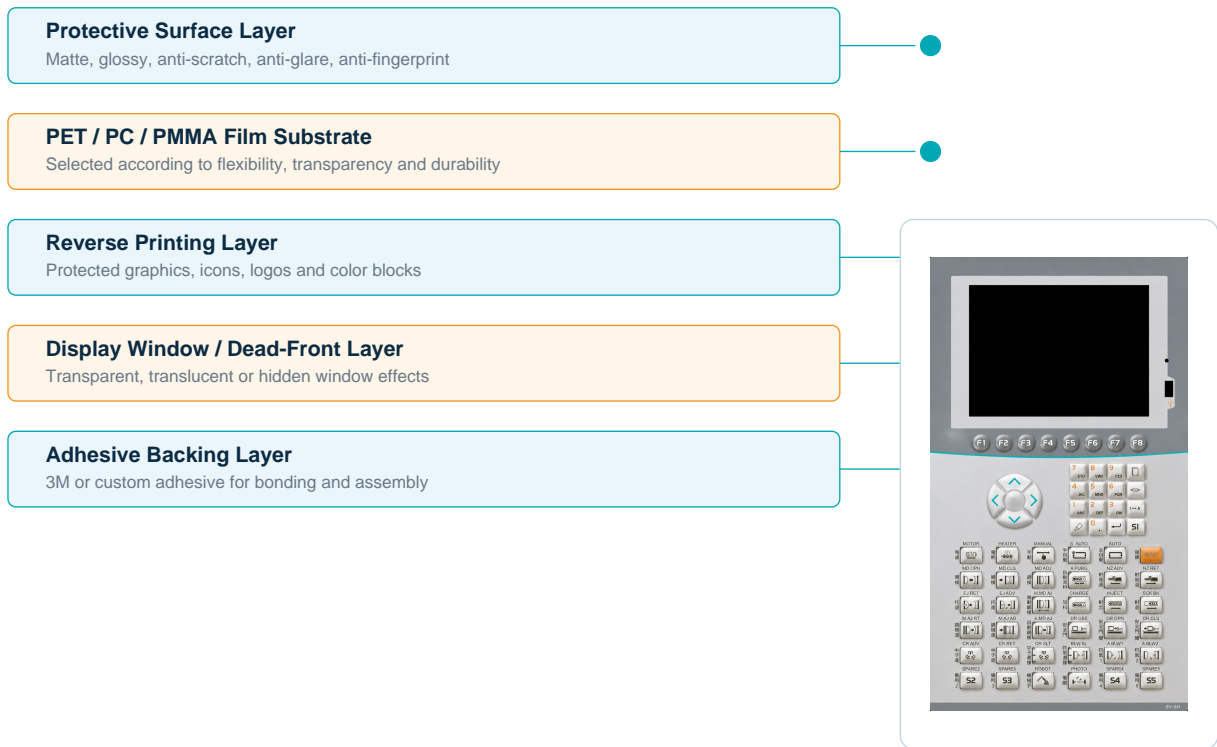
Matte, glossy, brushed, textured, anti-scratch and anti-fingerprint finishes are available.

Integration ready

Can be supplied as standalone overlays or integrated with membrane switches and HMI modules.

Graphic Overlay Structure

A graphic overlay is a layered HMI surface. The final stack depends on the artwork, display window, backlight requirement, adhesive structure and application environment.



Layer Description

Layer	Purpose
Protective Surface	Improves operation durability and surface appearance.
Film Substrate	Provides mechanical support, transparency and print base.
Reverse Printing	Keeps graphics protected from direct abrasion.
Window Areas	Supports display visibility, LED indicators and dead-front effects.
Adhesive Backing	Bonds the overlay to plastic, metal or switch assemblies.

Technical Specifications

The following specifications are available based on customer drawings, application environment and project requirements. Final values should be confirmed during engineering review.

Item	Options / Description
Product Type	Graphic overlay, film panel, display window overlay, HMI overlay
Material	PET, PC, PMMA or customized film material
Surface Finish	Matte, glossy, textured, anti-scratch, anti-glare, anti-fingerprint, easy-clean
Printing	Reverse screen printing, multi-color printing, transparent window, dead-front printing
Window Options	Transparent window, translucent window, LED/LCD window, dead-front hidden window
Adhesive	3M adhesive, industrial adhesive or customized bonding solution
Resistance	Chemical cleaning, UV, abrasion, humidity and temperature resistance available
Applications	Industrial control, medical equipment, automotive electronics, instruments, smart devices
Quality Support	ISO 9001, IATF 16949, ISO 14001; RoHS/SGS material support where applicable

Custom Options for Your HMI Design

Baoshengda supports customized graphic overlay and film panel development according to drawings, artwork files, samples or application requirements.

Graphic & Appearance

- Custom colors, icons, logos and symbols
- Display windows and indicator light areas
- Dead-front hidden window effects
- Matte, glossy or textured finish

Material & Surface

- PET, PC, PMMA material selection
- Anti-scratch or anti-glare surface
- Anti-fingerprint and easy-clean options
- UV-resistant material and ink options

Assembly & Adhesive

- Custom outline and die-cut holes
- 3M or industrial adhesive backing
- Bonding surface compatibility review
- Housing fit and tolerance support

Functional Integration

- Backlit icons and indicator windows
- Touch area and keypad layout marking
- Integration with membrane switches
- Display window alignment support

Application Scenarios

1

Industrial Control Panels

Automation equipment, machinery panels, testing instruments and operating terminals.

2

Medical Equipment Interfaces

Easy-clean surfaces, display windows and sealed interface structures for medical devices.

3

Electronic Instruments

Measuring instruments, handheld devices, laboratory equipment and test panels.

4

Automotive Electronics

Vehicle control interfaces, display windows, instrument panels and interior modules.

5

Home Appliances & Smart Devices

Appliance control panels, smart home interfaces and compact electronic products.

6

Security & Access Control

Alarm panels, access control devices, outdoor control terminals and security interfaces.

Typical use cases

Control labels, display protection, touch zones, backlit symbols and durable branded front panels.



Quality and Testing Support

Quality control can be planned according to the customer product requirements and application environment. For medical, industrial, automotive or outdoor applications, we recommend confirming surface durability, cleaning resistance, bonding and environmental requirements at the early design stage.

● Appearance inspection

● Color consistency inspection

● Window transparency inspection

● Adhesive and bonding review

● High and low temperature evaluation where applicable

● Salt spray testing where applicable

● Dimensional inspection

● Printing alignment inspection

● Light transmission inspection where applicable

● Surface scratch and coating inspection

● Constant temperature and humidity testing where applicable

● RoHS / SGS material compliance support where applicable

Information needed for quotation

2D drawing or outline, artwork file, color reference, material requirement, surface finish, window requirement, adhesive and bonding surface, backlight/display matching, application environment and estimated quantity.

Start Your Graphic Overlay Project

Send us your drawing, artwork, sample or application requirements. Baoshengda can help review your graphic overlay design and support prototype development and mass production.

Request a Quote	https://www.baoshengda-tech.com/request-quote/
Main Website	https://www.baoshengda-tech.com/

FAQ Summary

Question	Short answer
What materials are commonly used?	PET and PC are commonly used. PMMA or other materials can be selected based on application needs.
Can you make dead-front overlays?	Yes. Hidden windows and backlit icons can be designed with dead-front printing.
Can it be used for medical equipment?	Yes. Easy-clean, sealed and chemical-resistant options can be reviewed by project.
Can the overlay be integrated with a membrane switch?	Yes. It can be supplied standalone or integrated with switch, circuit, adhesive and backlight layers.
What do you need to quote?	Drawing, artwork, material, surface finish, windows, adhesive, application environment and quantity.

Baoshengda

Shenzhen Baoshengda Technology Co., Ltd. | Custom graphic overlays, film panels, membrane switches, FSR sensors and functional film solutions.