

Material Selection Sheet

A practical worksheet for selecting overlay films, adhesives and stack-up materials.

Use this when the application environment, cleaning method, outdoor exposure or housing surface may affect material choice.

Application environment

Application/device _____	Indoor or outdoor use _____
Cleaning chemicals _____	Temperature range _____
Housing material/surface _____	Expected life or warranty _____

Overlay material review

Material	Typical strengths	Watch points
Polyester (PET)	Durable flex life, stable printing, common for membrane switches	Confirm hard coat, texture and chemical exposure
Polycarbonate (PC)	Good forming and optical clarity for some overlays	Lower flex life than PET in switch key areas
PMMA / acrylic	Rigid clear panels and nameplates with good appearance	Review impact, scratch and adhesive requirements
Glass or lens insert	Premium window or touch panel appearance	Needs edge, mounting and breakage review

Adhesive and backing review

Area	Selection notes	Confirm
Back adhesive	Match adhesive to ABS, PC, metal, powder coat, glass or painted housing	
Spacer adhesive	Balance sealing, thickness and actuation force	
Gasket / foam	Use when compression sealing or uneven housing support is needed	
Rigid support	PCB, aluminum or acrylic support may be needed for assembly stiffness	

Environment checks

- UV or outdoor exposure requires film, ink and adhesive review.
- Oil, alcohol, disinfectant, detergent or solvent exposure is listed.
- High humidity or washdown use has a sealing strategy.
- Low/high temperature storage and operating range are known.
- Abrasion, gloves, repeated cleaning or heavy use areas are identified.
- Flame rating, UL material, RoHS, REACH or customer standard is required if applicable.

Material decision log

Overlay film	Surface finish
Window material	Back adhesive
Spacer/circuit material	Open tests before approval

Send drawings and requirements to JASPER engineering

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