



PRODUCT ARCHITECTURE AND
INPUTS

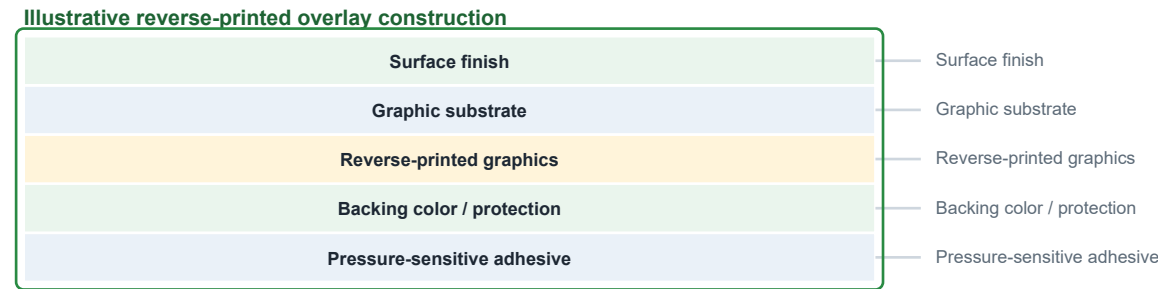
Graphic Overlay Design and Manufacturing Guide

Design inputs, artwork controls and manufacturing checkpoints for custom printed graphic overlays.

Design note. Material and process choices are project-specific. Final constructions require artwork, environment and assembly review.

Product role User graphics, windows, key areas, protection and identification	Primary inputs Artwork, material, finish, color, adhesive and cut geometry
Critical interfaces Display window, enclosure, switch features and backlighting	Release gate Approved artwork proof and manufacturing DFM

1. Functional Layer Stack



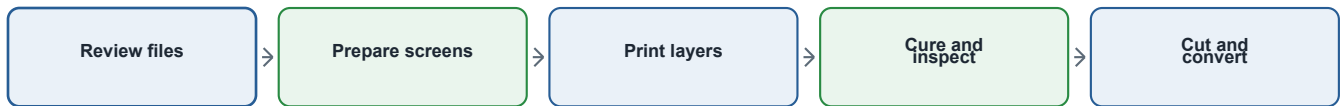
Design topic	Required decision
Substrate	Select film family and thickness from environment, flex, texture and optical needs.
Surface	Define gloss, matte, texture, hard coat or other functional finish.
Color	Provide controlled color references, viewing condition and acceptable variation.
Windows	Identify clear, tinted, diffused, printed or display-matched window requirements.
Adhesive	Define bond surface, application environment, cutouts and assembly method.
Protection	Specify abrasion, cleaning-agent, UV or chemical exposure only when required.



ARTWORK AND PRINTING
CONTROLS

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2. Artwork Package

Artwork item	Release requirement
File format	Provide editable vector artwork with fonts converted or supplied under control.
Scale and units	Submit at declared scale with one unit system and finished outline reference.
Layers	Separate colors, windows, adhesive, embossing, cutouts and notes by function.
Color definition	Use named color references and identify opaque, translucent or transparent areas.
Registration	Identify critical relationships among graphics, windows, keys and cut features.
Revision control	Place part number, revision and approval reference outside the finished artwork.

3. Print and Appearance Definition

Topic	Design instruction
Print order	Manufacturing defines the sequence needed for opacity, registration and cure compatibility.
Opacity	State where the assembly behind the overlay must be hidden in use.
Backlighting	Define illuminated legends, light source, color target and off-state appearance.
Window appearance	Confirm haze, tint, border, dead-front effect and acceptable cosmetic zone.
Embossing	Show shape, direction, location and mating clearance; confirm tooling through DFM.
Texture	Identify areas requiring selective texture, gloss contrast or protected optical surfaces.

Approve color and optical appearance on representative material and under the agreed viewing condition. Screen and monitor previews are communication aids, not final acceptance evidence.



MECHANICAL INTEGRATION AND
RELEASE

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Mechanical topic	Information to define
Finished outline	Dimension from functional datums and identify the controlled cutting process.
Cutouts	Define holes, slots, windows and corner conditions using measurable geometry.
Key areas	Show key centers, borders, embossing and relationship to the underlying switch.
Housing fit	Provide bezel overlap, edge gap, available thickness and assembly direction.
Adhesive pattern	Keep adhesive clear of windows, vents, moving keys and contamination-sensitive areas.

4. Assembly and Handling

- Clean and prepare the mating surface using an approved process.
- Use alignment features or fixtures when registration to the enclosure is critical.
- Avoid stretching, creasing or trapping contamination during application.
- Protect printed, optical and adhesive surfaces through shipment and final assembly.

5. Approval Evidence

Stage	Evidence to retain
Artwork proof	Text, symbols, orientation, color callouts, window locations and revision
First article	Dimensions, registration, appearance, opacity, adhesion and fit with mating parts
Production	Defined inspection zones, sampling plan, traceability and packaging protection
Change control	Material, ink, tooling or process changes reviewed before implementation

Release gate: Approve the artwork proof and first article against the same controlled drawing, mating parts and cosmetic criteria.