

Material Types

| Product ID | Manufacturer | Base Film | Hardcoat | Finish | Embossable | UL Rating | Texturable | Thickness | |
|--------------|------------------|---------------|----------|--------|------------|-----------|------------|---------------|-----------------|
| Autotex XE | Autotype | Polyester | Yes | Velvet | Yes | 94 RB | Yes | .006 to .008" | 0.15 to 0.20 mm |
| Autotex | Autotype | Polyester | Yes | Velvet | Yes | 94 HB | Yes | .006 to .008" | 0.15 to 0.20 mm |
| Autoflex EBG | Autotype | Polyester | Yes | Gloss | Yes | 94 VTM2 | Yes | .007 to .010" | 0.18 to 0.25 mm |
| Autoflex EBA | Autotype | Polyester | Yes | Matte | Yes | 94 VTM2 | Yes | .007 to .010" | 0.18 to 0.25 mm |
| 8010 Lexan | General Electric | Polycarbonate | No | Gloss | Yes | 94 V2 | Yes | .007 to .030" | 0.18 to 0.75 mm |
| 8A35 Lexan | General Electric | Polycarbonate | No | Velvet | Yes | 94 V2 | Yes | .007 to .020" | 0.18 to 0.50 mm |
| 8B35 Lexan | General Electric | Polycarbonate | No | Velvet | Yes | 94 V2 | Yes | .007 to .020" | 0.18 to 0.50 mm |

Glossary of terms

Actuation Force: The maximum force measured prior to or including the point at which keypad contact closure is achieved.

Backlighting: A flexible layer within a membrane switches construction that illuminates select areas of the overlay, such as text or graphic symbols. Examples of backlighting methods are E.L. (electroluminescent) or fibre optic.

Circuit: Functioning component (sub layer) of a membrane switch. Typically made of a silver conductive ink printed on polyester. Also can be a flexible copper circuit, a PCB or polyester printed with other conductive materials.

Contact Bounce: (Make) Point at which specified resistance is achieved.

Dead Front: Printing translucent ink in an area so that the graphic is visible only when backlit.

Density: The degree to which light transmits through a colour or transparent window. The higher the density, the less light will be transmitted.

Dielectric Strength: The voltage that an insulating material can withstand before breakdown occurs, usually expressed as a voltage gradient (such as volts per mil.)

E.M.I. (also R.F.I.): Electromagnetic Interference (Radio Frequency Interference.) Radiated energy from electrical devices, lightning and similar sources which interferes with the proper operation of electronic circuitry.

E.S.D.: Electrostatic Discharge transfer of high potential electrical charge between objects by contact or through air.

Files: Information or documentation created electronically by computer.

Font: A set of characters having a unified design.

Gloss Level: The degree of shininess of a particular material, usually specified in percentages such as 75% gloss, 90% gloss, and so forth.

Halftone: Image made of a pattern of various size and shape dots (newspaper photograph) rather than continuous gray.

Image Setting: The process by which electronic files are transferred to film or paper directly from the computer (computer onto film technology.)

LED: Light Emitting Diode.

Membrane Switch: A momentary switching device in which at least one contact is made of a flexible substrate.

Moisture Resistance: Ability of a material to repel moisture either from air or when subjected to water.

Non Tactile Switch: A switch assembly that has a tactile ratio equal to zero.

Overlay: Top layer of a membrane switch (the graphic interface between device and user) generally made of polyester or polycarbonate.

Pad Emboss: A raised area on an overlay, which defines an entire graphic. (i.e., a full keypad of L.E.D. window.)

Proof: A paper simulation of what a screen printed overlay will look like, submitted to a customer for approval.

Polyester Dome: A keypad on a membrane that has been dome embossed on the overlay or top circuit layer to add tactile feedback when the switch is activated. The dome shape, which is usually formed by a hydro forming process, can vary in size and shape to achieve a desired "force" and "tactile feedback" of the keypad.

Prototype Tooling: Method of fabricating prototype components without using steel rule dies (hard tooling) allowing changes before production runs without expensive tooling charges.

Rail Emboss: A raised area on an overlay which defines the perimeter of a graphic. (i.e., perimeter of a keypad or a border.)

Schematic: A drawing showing electrical interconnections and functions of a specific circuit arrangement.

Screen Printing: Method of printing by forcing ink through a mesh selectively. This is done by closing parts of the mesh with a stencil.

Screen Tint: Area of image printed with dots so ink coverage is less than 100%, simulating shading or a lighter colour.

Selective Texture: A transparent velvet finish printed on specified areas on an overlay to accentuate design elements such as windows, keypads or graphics.

Shield: A layer of polyester material that is either laminated with aluminium or printed with conductive ink to protect a switch from E.S.D. or E.M.I. interference.

SMD: Surface Mount Device.

S.M.T: Surface Mount Technology.

Specified Resistance: Maximum allowable resistance measured between two terminations, whose internal switch contacts, when held closed, complete a circuit.

Sub Surface Printing: Imaging on the back (second surface) of an overlay so the printed graphic is protected from wear by the actual material.

Tactile Ratio: A measure of tactile response.

Tactile Response: A sudden collapse or snapback of a membrane switch prior to contact closure or after contact opening.

Tactile Switch: A switch assembly that provides a tactile ratio greater than zero. Tactile switches give the user immediate physical feedback that the switch has been activated. Tactile feedback on a membrane switch can be achieved by using a stainless steel dome or a polydome construction.

Termination: How a switch is connected to the device it activates.

Translucent: Partially transparent. Having the property of diffusing light.

Transparent: Having the property of transmitting light without appreciable scattering so that objects beneath are entirely visible.