

Switchable Glass

Imagic Glass has partnered with Gauzy, an innovative company which specializes in the manufacturing of Liquid Crystal films, to bring high-quality, ultra-low haze Liquid Crystal Glass (LCG®) to market. LCG® allows glass to switch from various degrees of opaque to transparent, on demand and dimmable. When the glass is opaque, the material can be used as a white board, a surface for projections or a privacy screen. Switchable glass makes any surface multi-use and multi-functional, switching back and forth with ease and is ideal for both interior and exterior use, blocking 99% of UV.

Some examples of applications include privacy partitions in dressing rooms, bathrooms, board rooms, offices, healthcare and hospital settings; projection screens for lobbies, offices, boardrooms and storefront windows.

LCG technology is created by laminating PDLC (Polymer Dispersed Liquid Crystal) films between specified glass types and thickness. The film disperses liquid crystal in a polymer, which is placed between two pieces of PET with a conductive coating (ITO). The recipe undergoes a UV process, and the result is PDLC film. Copper busbars are applied, and with electricity form a Gauzy certified controller, films turn from OFF to ON in milliseconds.

When the film is OFF, it appears opaque, as the liquid crystals are randomly dispersed, not allowing light to pass through. When the film is ON, it appears transparent: electricity is applied, the liquid crystals align, therefore letting light to pass through and creating an ultra low-haze transparent appearance (3% haze).