



Over the past few decades, hospitals and the treatment they give, has changed dramatically. Such have the advances been in curing the physical illnesses that focus has now shifted to looking at other factors within healthcare facilities that affects the treatment of patients and their recovery times. A few of the issues that the EU commission have highlighted as problem areas can easily be solved using ESG Switchable™ glass.

The spread of bacteria within healthcare facilities has been studied closely over the last decade, the results of these studies show that hospital curtains, blinds and handles are major contributors to the spread of bacteria such as E-Coli and MRSA. For instance, it was shown that despite a rigorous program for the replacement of privacy curtains, they were in reality, not being replaced for 3-4 months. By which time the dirt and bacteria build up was physically visible, this build up on the curtains allowed pathogens to reach the beds of nearby patients. The replacement of these traditional material privacy curtains with a retractable privacy curtain system made from ESG Switchable™ glass treated with an anti-microbial coating (AMC) led to the reduction in the build-up of bacteria and therefore lowered the spread of disease. The AMC on the glass acts in exactly the same way that the non-stick on cookware works; it reduces the ability of the dirt and bacteria to stick to the glass. Health guidelines state that 5000 bacteria per sq. inch is an acceptable level and tests have shown that on a panel treated with AMC the bacteria levels are found to be as low as 300 bacteria per sq. inch.

The versatile ESG Switchable™ glass range can also be used to replace blind and curtains on the wards, which were also poorly rated in the hygiene tests. The bacteria build up on these was similar to that of the privacy curtains, but with there being no replacement policy for these items, the levels were highly dangerous in some cases.

## Medical Solutions

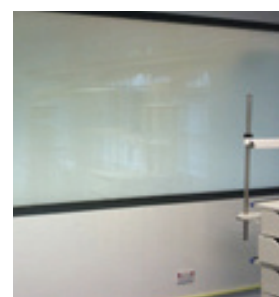


Many years ago it was decided that blinds were difficult to keep clean and people looked to alternatives. A popular choice was glass with integrated internal blinds. However, the handles that worked the blinds were found to collect bacteria just as quickly, but more importantly the internal blinds are known for mechanical failures and once broken they are costly and impractical to replace. ESG Switchable™ solves the problem but without having parts that may fail and without having the need to be physically handled.

Mental wellbeing has proven to be a factor in the speed with which people recover from illness. Care guidelines that are now in place state that it is paramount for staff to ensure patient dignity is not compromised at any time. ESG Switchable™ panels allow for the patients environment to feel light and open – helping to create an environment that is conducive to their healing. Yet at the same time allows the staff on the ward to have the ability to switch the glass giving complete privacy when needed, be this for the administration of standard treatments or in the event of an emergency when there is no time to move the patient. ESG Switchable™ can be switched to its opaque state instantly at the push of a button; this can be on a remote control carried by a member of staff from anywhere on the ward or a wall mounted, easy clean touch switch.

Mental health facilities and prison hospitals are also environments where similar problems are present but they have issues with security both through violence and attempted patient self-harm, which make conventional switchable glass an unusable solution due to potential breakage. However, due to ESG's in-house production of all of our glass, we are able to combine our ESG Switchable™ LCD privacy glass with our ESG Secure™ glass range. This creates a switchable glass solution that not only can be treated with an anti-microbial coating but can also have the strength to stop breakages from physical attack right through to stopping a bullet. It can be made to EN365, LPS1270 and EN1063 standards, even CF628 fire resistance if the call arises, making ESG Switchable™ LCD privacy glass the most versatile privacy glass available for the medical profession.

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## Technical Specification

<b>GLASS COLOUR:</b>	Can be combined with colour interlayers or a wide range of tinted glass to meet any bespoke requirement.
<b>ENVIRONMENTAL:</b>	Storage -20 °C to 70 °C (-4 °F to 158 °F)
<b>OPERATION:</b>	0 °C – 70 °C (32 °F – 160 °F)
<b>GLASS TYPE:</b>	Low iron, annealed, heat strengthened, tempered (All laminated)
<b>ELECTRICAL:</b>	Driving voltage: 65 volts A.C.
<b>THICKNESS:</b>	Various from 10 mm to multi-layer
<b>MAXIMUM SIZE:</b>	Up to: 1,800mm x 3,500mm
<b>SWITCHING TIME:</b>	Approx. 100 milliseconds at room temperature
<b>SHAPE:</b>	Any shape including holes
<b>LIFE:</b>	Up to 25 Years with due care
<b>WARRANTY:</b>	5 years