

November 2017

## The Alternative to Curtains and Blinds

### The Current Picture

The increased adoption of glass in architectural design, predominantly for large sliding and bifold doors, is expected to continue to grow. This is good news for door companies and architects designing extensions, renovations, and new homes. But how about the day-to-day living experience for residents?

### The Challenges

#### Solar management

More glass of course means more light, and more light means more exposure to the sun and a greater need for solar control. Natural light is a popular design element, but unmanaged, can create an uncomfortable living environment, especially during hot summer months when stunning glass living spaces can feel like greenhouses, or in low winter sunlight when eye-level glare becomes an issue.

#### Problem of Privacy

Curtains are not the best solution for dressing large, glazed openings, which means homeowners are searching for a solution to preventing passers by from observing every aspect of their daily routines. With large doors and windows, our home interiors are more exposed than ever before. Traditional Venetian blinds obscure the view and detract from minimalist architectural lines without stopping insects, and net curtains are no longer favoured – especially not in the widths needed to seamlessly screen large openings.

#### Uncertain About Curtains

Clean architectural lines can be compromised by curtain fabric ‘bunching’ across the track and to the sides when open. Four metres of high-quality curtain fabric, for example, is very heavy and can require significant space to sit when open, reducing available light. Curtains offer an on/off solution to heat, glare and privacy, but are limited in their flexibility beyond that. Sunlight can also ‘bleach’ or mark the lining fabric creating an uneven look from the outside.

Curtain folds also provide attractive resting and hiding places for flying insects during the summer months. Additionally, curtains do not prevent from bugs entering the home during hotter months when it’s important to open the doors and ventilate your home.

## Smart Glass but No Air

Thermochromic or smart glass offer great solar management solutions but zero ventilation. Allowing exterior air to circulate is not only better for health but helps maintain connections with the exterior landscape. In strong sunlight, thermochromic glass also loses its transparency and therefore can obscure exterior views.

## The Solution

### Maintain Clean Design Lines

Screens are growing in popularity for their performance flexibility and for their low impact on interior design. Retractable, recessed screens don't interfere with architectural design because they disappear almost completely from view when not in use.

This means homeowners can maximise every inch of available light with no distraction from clean architectural lines. Furthermore, the screen frames can be made to match any RAL colour, helping them to blend seamlessly with existing door colour palettes.

### Performance flexibility

When it comes to performance, Phantom Screens' high-tech mesh fabrics can provide a variety of solutions depending on need. These include insect control at around 50% openness, to privacy control at around 5% open. Unlike curtains or smart glass, high-performance mesh fabric provides ventilation which can help manage heat build-up during summer months.

Screen fabrics reduce glare and diffuse the light but retain views to the outside so you keep the feeling of openness and the connection with the exterior landscape. Solar screens block up to 95% of harmful UV rays, so they not only protect your skin, but your furniture, rugs and other furnishings too.

The solar management feature of performance mesh contributes to energy saving by reducing the requirement for HVAC cooling systems in the summer. Architects and engineers calculate the heating, cooling, and lighting performance of a building during the design phase. When included in these calculations, screen fabric can contribute significantly to the building's overall performance rating.

### Mesh Colours

Different coloured meshes can be used to achieve different effects. For example, dark mesh allows you to see through and focus on the landscape beyond; this is because dark mesh reflects less light and glare. Light colour mesh reflects light back towards you, brightening up interiors. Lighter meshes can also be used to reduce visual noise in the evening by neutralising reflected points of light and other bright highlights in the glass.

## What effect will my chosen performance fabric give?

The following images give a rough, simulated guide to the appearance of various mesh types with theoretical openness factors. Although these images provide a rough guide, it should be noted that the appearance of each mesh can vary considerably depending on lighting conditions both inside and outside the property.

### Daytime View – Grey/Charcoal Mesh



Block

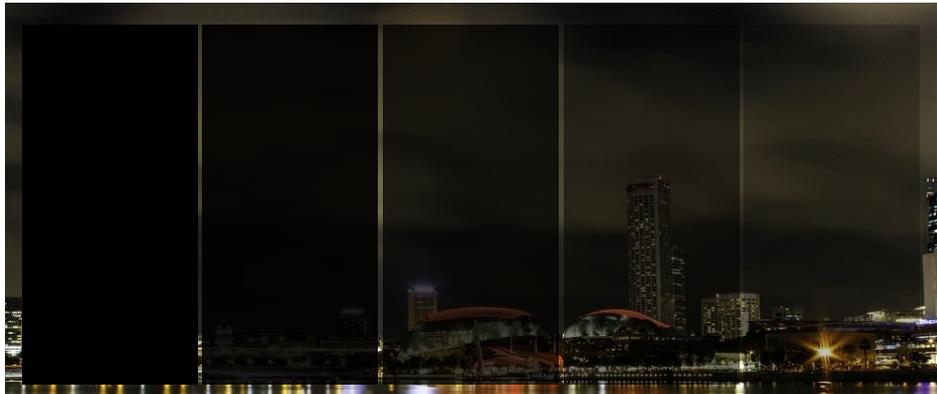
10%

25%

50%

75%

### Night-time View - Grey/Charcoal Mesh



Block

10%

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