Project Case Study No. 16



SmartGlass at the home of Guinness

Located in the heart of Dublin at St. James' Gate Brewery is Ireland's No. 1 international visitor attraction, the Guinness Storehouse. Since opening in 2000, the storehouse has attracted over 4 million visitors from all over the world.

This £30 million visitor experience brings to life one of the world's most iconic brands. Its impressive design and unique features create the ultimate visitor experience and continue to excite and intrigue ensuring that visitors return time and time again.

The Storehouse is laid out over seven floors surrounding a glass atrium in the shape of a pint of Guinness. The ground floor introduces the beer's four ingredients, water, barley, hops and yeast, as well as the brewery's founder, Arthur Guinness.





In 2006, a new wing opened incorporating a live installation of the present day brewing process. The seventh floor houses the Gravity Bar where visitors may claim a complimentary pint of Guinness and enjoy the 360 degree views over Dublin City.

The design brief for this new wing centered on educating visitors about the making of Guinness from beginning to end by creating an exciting interactive experience.

Visitors to the Guinness Storehouse would appreciate the elaborate brewing process of Guinness and would get to know the ingredients that are mixed into the brewing beer.

The ground floor would house the massive exhibit of water, barley, hops, and yeast — the famous four ingredients that make the perfect pint.

The second floor is where visitors would learn about the process of brewing, where each stage of the process is illustrated using computer-generated images and a series of projected graphics.

SmartGlass International was able to provide a solution which would perfectly meet the design brief requirements for this new wing.

Client: Guinness Storehouse

Date: May 2006

SmartGlass International



SmartGlass International is the leading worldwide manufacturer of Electronically Switchable Glass. SmartGlass International has its head quarters, manufacturing, finance and R&D centres in Dublin, Ireland with commercial, sales and technical offices in the UK.

SmartGlass can be used in almost every glazing application as it is available in a number of various shapes and can also be curved making it suitable for a range of different applications and projects. SmartGlass International manufactures two switchable glass products, LC SmartGlass for instant privacy and SPD SmartGlass for solar and light control.

LC SmartGlass

LC SmartGlass panels are bespoke manufactured using a lamination process which encapsulates a PDLC film between 2 or more glass sheets. Using a minute electrical current, users can immediately switch the LC SmartGlass from clear to private (opaque) and vice versa.

When the electrical supply is switched on, the liquid crystal molecules align and incident light passes through and the LC SmartGlass panel instantly clears. When the power is switched off the liquid crystal molecules are randomly oriented scattering light and the LC SmartGlass becomes private (opaque).

When LC SmartGlass is switched to it's "off" state it changes into a high contrast rear projection screen. The LC SmartGlass is curved so that visitors can experience a 360° visualization of the process. Images of the brewing process are projected onto the curved LC SmartGlass panels from within to create an interactive display of imagery illustrating the brewing process from beginning to end. LC SmartGlass is also used as part of the "keeve in the kettle" display where the internal workings of the copper kettle can be seen through the glass when in its clear state. The glass can then switch to its opaque state where video is projected onto the screen to display the history behind the copper kettle and its role in the production of Guinness.





The Guinness Storehouse truly is the home, heart and soul of Guinness. SmartGlass International is honored to be part of this legendary project, one that is famous the world over.

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