

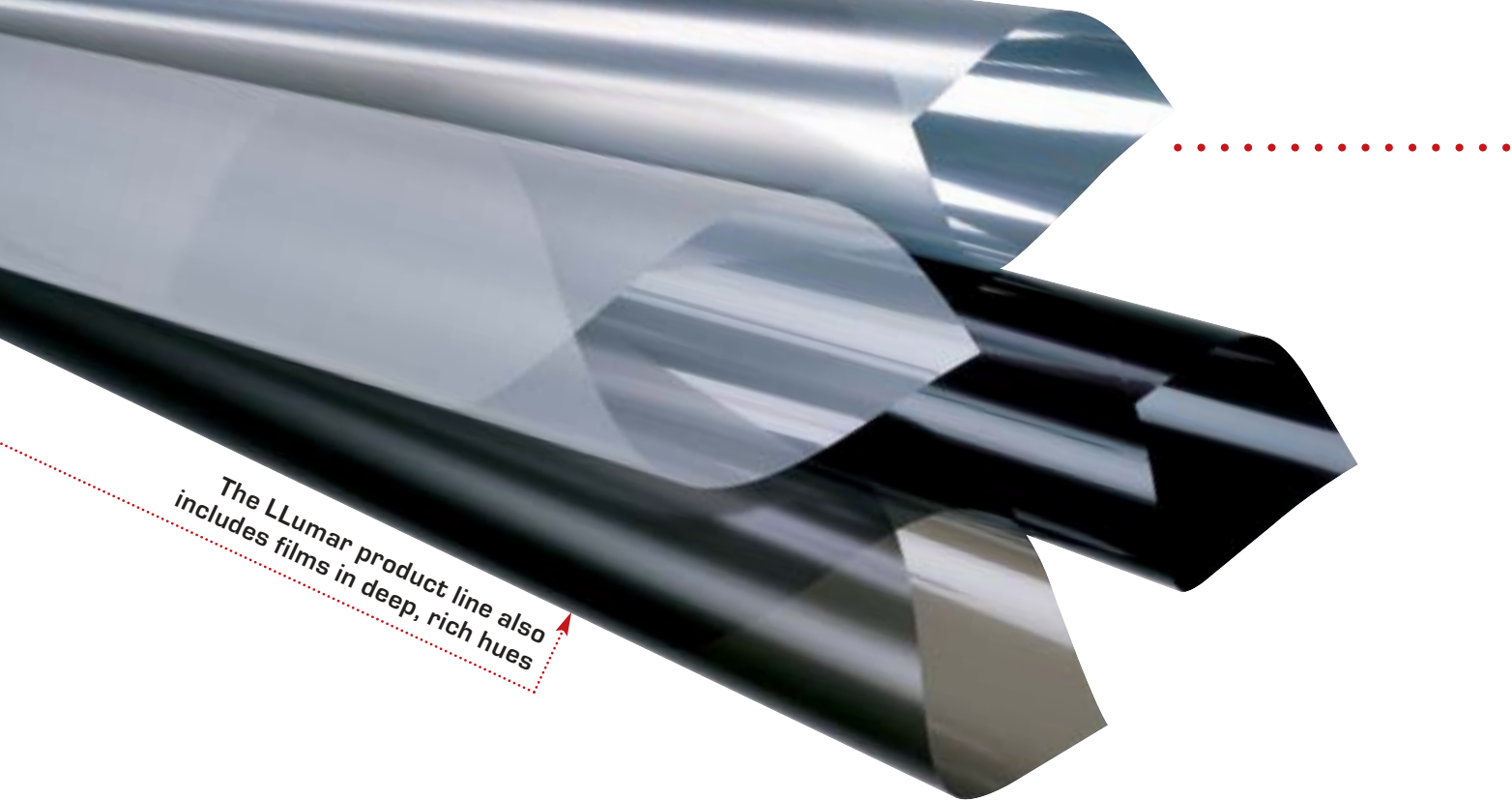


Product development

New retrofit products open a window of opportunity

Dramatic visual effects from
different frosts and panels

Ray A. Bryant



The LLumar product line also includes films in deep, rich hues

A new line of glass treatment films from CPFilms is causing further reflection on the art and science of glass enhancement. Christened LLumar Glass Enhancement Film, the material is reported as dramatically extending the available palette with a full spectrum of colours and textures.

With 18 products, the new line aims to become the retrofit solution to high performance glazing by adding dramatic emphasis to the formerly utilitarian functions of privacy and glare reduction. Such claims clearly required further investigation.

CPFilms Inc., a unit of Solutia, is described as being the world's largest manufacturer of glass treatment films and is based in Martinsville, Virginia, the United States. Additional manufacturing facilities are situated in Axton (also in Virginia); Canoga Park, California; and Runcorn, United Kingdom. The American ISO 9001-certified company employs 720 people and has an annual manufacturing capacity of 250 million square feet of film. CPFilms is the exclusive manufacturer of LLumar brand glass treatment films.

GLASS ENHANCING FILMS

Virtually unlimited effects are attainable through the use of layering glass enhancement films. With specific installation techniques and computerized cutting, films now open windows of opportunity for creativity. The product, which will be introduced at *glasstec 2002*, is expected to make quite an impression on those architects and designers who will be attending a special preview.

Traditionally, glass treatment films present both opportunities and limitations. While consumers, architects and design professionals apparently praise the material's capacity to improve safety and enhance solar performance, the aesthetics have been limiting. The new film's creators have designs on shattering those images, creating a significant breakthrough in expanding the use and applications of glass treatment film to the retrofit market.

Advantages

Acid etching has been the time-honoured way of applying patterns to glass. The process can be costly, errors are almost impossible to correct, the treatment is permanent, and few other benefits are derived from acid etching. The chemicals used in the process are harsh, and cleaning can be a challenge.

The new glass enhancement film thus offers many advantages. Although the product is durable - it carries a manufacturer's warranty up to five years - it can be removed in the event of remodelling. Maintenance through traditional cleaning methods is easy and problem free. Cost is a fraction of that of acid etching. In other words, it looks and works like glass, but offers a flexibility that cannot be attained through glass.

Market sustainability

While the concept of branding has never been stronger, the reality is that logos and corporate identities have a shelf-life. Most logos change, at least modestly, every five years or so. Product extensions are constantly being introduced. Slogans change. With glass enhancement films, updating is quick and very economical compared to the time, expense and complexity of glass replacement.

Glass enhancement films are offered in an array of colours, patterns and designs including dots, thin and wide stripes, solid frosts and much more. Stripes can be used to create a Venetian blind look. Frosts and patterns can be cut in a variety of designs and can be applied in layers with other patterns or colours for



Glass enhancement films can improve the aesthetics of an office environment and facilitate privacy

added light muting or dramatic visual effects.

Glass enhancement films can enhance the function of an office or manufacturing environment by transforming public places into working spaces. Adding a frosted panel behind text or a logo on a window can drastically improve legibility without significantly limiting light.

Darker and opaque films can be added to facilitate privacy. Depending on the needs of the application, vision can be completely blocked, partially obscured, or one-way, creating a sense of privacy while still preserving an open and airy feel to the room.

LLumar's glass enhancement product line also includes a series of graphic arts films available in deep, rich hues, including the primary colours: red, yellow, green and blue. All of these colours can be combined and stacked to yield a dynamic range of hues. Even in applications where light or visibility must be completely blocked, the options can apparently be quite beautiful.

PUTTING ART BACK INTO BUSINESS...

Amazing window art can be created through cutting patterns; even effects rivalling stained glass - without the expense or commitment. A growing number of airports, restaurants, office buildings, private residences and public spaces feature these new designer films that are characterized as being distinctive, elegant, attractive and extremely cost-effective.

Although the colour film is durable in terms of stability, some loss of hue intensity is experienced when exposed to direct sunlight. For that reason, it is best used on interior applications. The





**LLumar film
in a public
environment**



**LLumar film
applied to
doors and
windows**

colour films offer flexibility that is not limited to windows or partitions. It has interesting applications on doors and even existing glass cabinets or glass conference room tables. Another use for the film is the updating of doors or other glass areas in older buildings without affecting their historic significance or value as antiques.

... and colour back into science

Coloured films occasionally find special technological, scientific and medical uses. Deep amber films filter out nearly all ultra-violet



(UV) and blue light, especially damaging in certain photo-critical manufacturing operations, such as those involved in microelectronics. UV and blue light have also been known for years to be exceedingly harmful to people with certain medical conditions, including rare skin disorders, such as lupus and xeroderma pigmentosum (XP).

The beauty of glass enhancement film goes deeper than the surface. The company describes the application of LLumar film as strengthening and enhancing safety at its most vulnerable point. Not only can film, it is claimed, add to the structural integrity of glass, it also holds shattered glass in place in the event of sudden impact - reducing the likelihood of personal injury. The application of glass treatment film can significantly reduce the likelihood of people walking into glass walls, doors or sliding doors, avoiding serious injury. Glass enhancement film is a way for glass areas to be obvious, but not an eyesore.

LAST - BUT DEFINITELY NOT LEAST

Long-term safety for employees is also, it seems, enhanced by an application of the product. LLumar glass enhancement film contains the same ultraviolet absorbers that conventional solar control films have. Used on sun-exposed glass, films eliminate more than 99 per cent of UV rays, and can offer significant protection from the damaging effects of this form of solar radiation, reducing fabric fading and screening out a known cause of skin cancer that is transmitted through unprotected glass. ■

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