

Non-combustible fibreglass fabrics return to the contract marketplace

Interglas-Technologies of Germany introduces *Flamline*[™] fibreglass fabrics for multiple design solutions

Non-combustible fabrics (DIN 4102-A2) are similar in appearance to the fabric styles typically used in contract market installations. *Flamline*[™] fabrics are suitable for multiple applications and contribute to both form and function. The raw materials used to produce the continuous filament glass yarns used in the fabrics are all naturally occurring: quartz, limestone and kaolin and are the basis for the non-combustible properties of the fabrics. Unlike widely used synthetic fibers, fibreglass yarns do not provide a source of fuel to the combustion process, and when subjected to the intense heat of a structural fire, do not form molten drips that can spread flame to other materials.

Flamline[™] fabrics do not require polymer modifiers or topical treatments that can generate toxic gases in fire situations. The surfaces of decorative *Flamline*[™] fabrics can be dyed or printed with pigments that adhere to the surface. The fabrics are washable in cool water (30 degrees centigrade) as higher temperatures are not necessary as dirt, grime and oils cannot penetrate the surface of the glass fibers. Thus, mild, chlorine-free detergents are sufficient and fabrics can be dried without the use of energy intensive tumble driers as the fabrics do not absorb water. Ironing isn't necessary and microbial growth is not supported. Anti-microbial or disinfectant sprays can't stain the glass.

Flamline[™] fibreglass fabrics meet the stringent requirements of the German building codes and qualify for the highest fire safety rating, A2, a classification reserved only for building materials that do not contribute fuel, smoke nor contribute to the spread of flame. The styling of the *Flamline*[™] fibreglass fabrics with this level of fire safety forms the basis of a solution for design problems where fire safety is of paramount importance.

Sound absorption

Flamline[™] fibreglass fabrics contribute to the acoustical balance of a space when used as either drapery fabrics or as wall coverings and offer noise reduction properties that have been confirmed by independent, accredited acoustical testing laboratories in Europe. Acoustical test data can be used by architects and space planners to insure that the desired acoustical properties result from their designs.

Fire curtains (smoke curtains, blinds)

Rigid fire curtains can easily be fabricated using *Flamline*[™] fibreglass fabrics. Fire curtain systems require little space and can be designed to meet specific needs. Fire curtain systems can be

integrated with the fire alarm and sprinkler systems, so that activating one of the system components can activate the others. A neutral-color *Flamline*[™] fabric with an intumescent coating is available for fire curtain applications.

Expo and Trade Show Exhibits

Interglas-Technologies has also developed a fabric to enhance the appearance of large, open display areas at trade shows and exhibits. The open construction of the fabric allows it to be installed below ceiling sprinkler systems. The fabric and application has received the approval of both insurance and fire safety authorities.

Digital Printing

Digital printing of *Flamline*[™] glass fabrics does not present a problem. *Flamline*[™] fibreglass fabrics allow design of signs, awnings and banners as well as draperies and wall coverings that are inherently fire resistant. The round shape of the clear, glass fiber used in *Flamline* fabrics[™] allows printed images to appear with greater brilliance due to the internal reflectance of light within the fabric matrix.

In outdoor applications, *Flamline*[™] fibreglass fabrics resist ultra-violet degradation and offer tensile properties many times that of steel as well as both synthetic and natural fibers when measured in grams per denier. With such properties, *Flamline*[™] fibreglass fabrics are often the choice for architectural applications. In many applications, the life-cycle cost of fibreglass fabrics also compares favourably against other materials.

Theatre, stage and screen

The dielectric or insulating properties of glass combined with its non-combustible nature make fibreglass fabrics an intelligent choice for the greatest fire safety. Non-fiberglass fabrics, used in these applications, even if made of flame resistant polyester, may generate smoke and toxic fumes as well as contribute fuel to the combustion process if a fire were to occur. This risk can be substantially minimized by the use of non-combustible, *Flamline*[™] fabrics. A wide color palette is available.

Ceiling and wall covering

Flamline[™] fibreglass fabrics are used as the visible component of wall coverings used in many small arms firing ranges as well as in large concert halls. Decorative fibreglass fabrics can also be used to create a “dropped” ceiling to reduce room heights of older buildings. Ceiling material colors can be coordinated with painted mouldings and walls. The translucence of the fibreglass materials used on the ceiling allow for safe and creative lighting design as well.

Sound control panels covered with Flamline™ fabrics can be installed both on walls as well as on ceiling surfaces to absorb echoes and add to the acoustical enjoyment of the evening. *Flamline™* fiberglass fabrics allow the space planner as well as the acoustical engineer to positively influence the relationship between the eye and the ear and enhance the entertainment experience

Decoration and design

Just think of the possibilities ... they are really endless ... fabric structures, clear colours ... easy solutions for design problems where fire safety is a concern Freely hanging as drapes or stretched into structural form, smooth or wavy while multifunctional and expressive. Flamline™ fibreglass fabrics offer the very highest levels of fire safety for cruise ships, hospitality healthcare facilities, schools, concert halls, expo spaces, and museums. Wherever life is to be protected.

Commercial upholstered seating and bedding

Foam filled cushions can be completely encased with Flamline™ fibreglass fabrics creating a non-combustible fireblocking layer between the foam material and the cover fabric to prevent the flame from penetrating into the cushioning. Fiberglass reinforced fabrics are currently used in fire blocking fabrics used in the US marketplace to insure compliance with newly enacted flammability standards.

Sun protection screen

Exceptionally strong and UV-resistant, glass fabrics coated with PTFE and silicone compounds offer exceptional strength and durability in outdoor applications. *Flamline™* fibreglass fabrics can be rolled, folded, and cut into strips. Colored with UV stable pigments and reflective coatings the Flamline™ fabrics are suitable for applications where the installed height would make cleaning impractical. The screen fabrics are available in both transparent and semi-transparent styles, for both light and heat control. Each style is available in white, grey and anthracite, with or without aluminium vaporisation on the side exposed to the sun.

Welding protection - insulation

These unique styles are coated with polyurethane and reinforced with stainless steel wire for use as flexible insulation, welding protection, fire curtains, gaskets and expansion joints. These engineered fabrics become components of a protective system in a wide range of applications.

Future

These are but a few of the countless examples where Flamline™ fibreglass fabrics are used to offer solutions to design problems. Many fabric styles are available to stimulate creative design while providing the highest level of fire safety for space occupants.