



THE FABRIC THAT HAS IT ALL

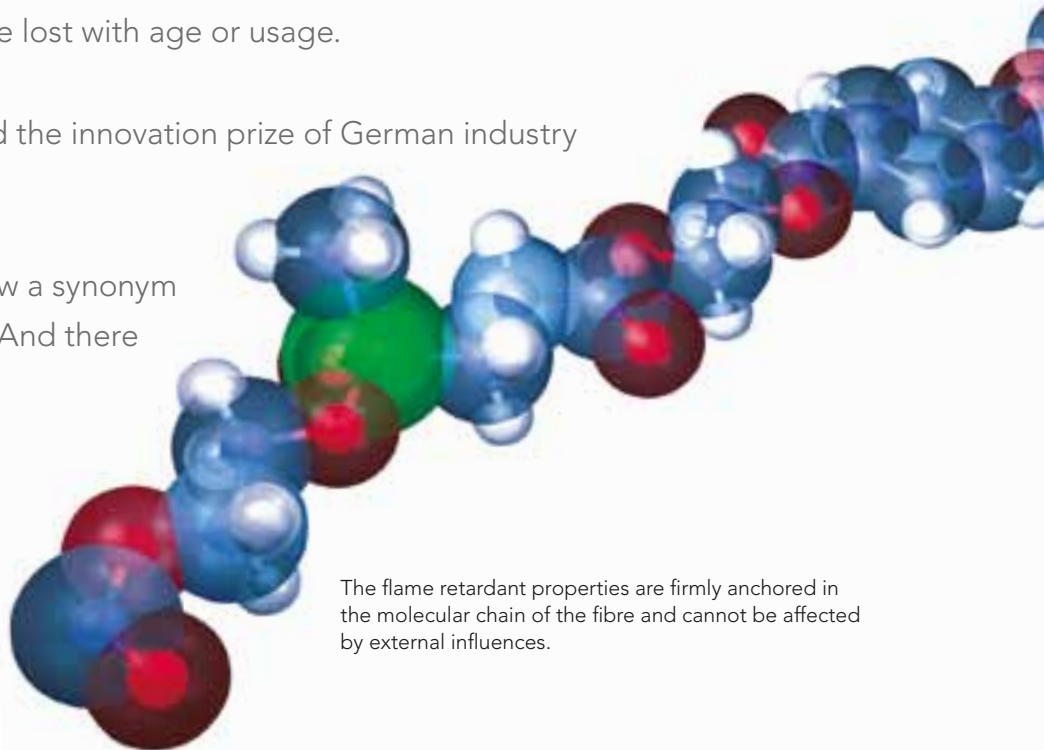


The initial material for any fabric consists of fibres and yarns. They are the determining factor for function and design of the textile fabric made from them. The more varied the fibres and yarns, the greater can be the value of the fabric design. Man-made fibres, furthermore, make it possible to build in functions that supply added value to the material.

Trevira has done pioneering work in this field with its range of flame retardant fibres and yarns. As long ago as 1980 the first Trevira CS textiles made from these fibres and yarns came on the market. What is special about them is that they all meet important fire safety standards and achieve this without any chemical finish. The permanently flame retardant polyester fibres constitute the basis for a new generation of functional textiles – their flame retardant properties cannot be washed out or be lost with age or usage.

In 1982 Trevira was awarded the innovation prize of German industry for this product.

The **Trevira CS** brand is now a synonym for flame retardant fabrics. And there are good grounds for this.



The flame retardant properties are firmly anchored in the molecular chain of the fibre and cannot be affected by external influences.

5 seconds



90 seconds



120 seconds



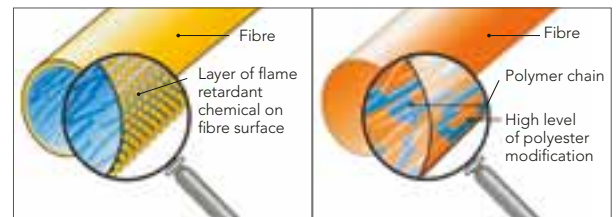
Comparative burn test: This test shows how flame retardant Trevira CS textiles (left) melt away once the ignition source has been extinguished, while conventional fabrics go completely up in flames.

Guaranteed safe

Textiles have an important role to play in interior design and furnishing. They form an integral part of the aesthetic concept, they ensure comfort and exercise a sound-deadening effect. They also have considerable influence on the origins and spread of fire. Where conventional textiles come into contact with a fire source, flames can spread with lightning speed over the material, soon engulfing the area. In contrast, Trevira CS fabrics counter the spread of flames and so help minimise the risk of fire.

These textiles gives users the assurance that it is possible to furnish spaces safely. The secret of this inbuilt safety lies in the chemical structure of the polyester fibre. The flame retardant properties are in the form of a phosphor-organic compound that is firmly anchored in the fibre. External influences are not able to affect or alter this element.

Fabrics can be given a finish that is applied at a late stage and this can lose its initial protective qualities through usage, age or frequent washing. Unlike these materials, Trevira CS textiles offer long-term safety.



FR finished fabric

Trevira CS

In order to supply maximum safety, Trevira builds in an additional level of security for Trevira CS fabrics. The company tests all materials bearing the Trevira CS brand for flame retardancy. Only after passing the burn test do the fabrics receive approval and circulate under the Trevira CS trademark. All suppliers of Trevira CS materials must conclude a contract, authorising the use of the registered Trevira CS®. In this way users can always rest assured they are handling materials that fulfil important fire safety standards throughout the world.

Trevira CS textiles guarantee tested quality. They consist of flame retardant fibres and yarns by Trevira and their partners in the spinning and yarn finishing stages. It goes without saying that Trevira maintains stringent monitoring of the guidelines safeguarding the brand.

Incredibly easy care

Trevira CS textiles are noteworthy for high colour brilliance and fastness to light. They are extraordinarily hardwearing and retain their attractive qualities for a long time, even with intensive use. Upholstery fabrics withstand high levels of abrasion and do not stain other textiles. Trevira CS materials are easy to clean and are quick drying. They are low-crease and retain their shape after washing. Marks can easily be removed with traditional cleaning agents and methods. They are, incidentally, quite economical to maintain. Unlike what happens with other fabrics, washing them takes substantially less water, less detergent and – thanks to short drying times – less energy to dry them.



Flat filament yarns



False twist texturised filament yarns



Jet-Text or Jet-Tweed yarns



Fancy filament yarns



The flame retardant properties are firmly anchored in the fibre and cannot be lost in washing. As a result, functionality is retained throughout the life cycle of the textiles, with no need for costly processes to renew properties.



This test simulates the typical level of wear on upholstered seats. Trevira CS reveals a high degree of resistance to abrasion and wear.



High wet rub fastness: Trevira CS leaves no marks on a damp white cloth, even when the fabric is rubbed vigorously with it.

Infinitely versatile

Trevira CS collections are becoming more and more ambitious in their designs – and this at a time when the market is increasing its demands and fresh end uses are being developed. In appearance it is frequently impossible to distinguish them from textiles made from natural fibres. At the same time there are fresh surfaces appearing, seemingly technical, which can only be achieved with the use of man-made fibres. This is made possible by continual expansion of the fibre and yarn programme, which increasingly contains new fancy and textured yarns from spinners and finishers. It is thanks to their creativity that fabric designers can draw on the most varied and innovative range of flame retardant yarns when they create Trevira CS materials.

Flame retardant Trevira fibres and yarns are thus not only the basis for the functionality of textiles, they also ensure that manufacturers and fabric houses are able to set international trends.

Unexpectedly sustainable



When it comes to sustainability, textiles made from polyester do not have to take second place when compared with materials in natural fibres. On the contrary, both in manufacture and in usage, they consume fewer resources than natural fibres, for instance with regard to the use of water and agricultural space. The textile can also supply many advantages during the usage stage. The ecological washing process (short wash cycles and drying times, consumption of less water and detergent) is a real plus point for the environment. Polyester is also non-toxic, does not degas and is easily recycled or safely incinerated to create energy.

Trevira textiles are environmentally friendly. Which cannot be said of fabrics in which specific functions are achieved by applying a chemical coating. When washed, Trevira CS fabrics do not release any finish that can harm the environment. With Trevira CS, functions active in the textiles, such as flame retardancy for example, are firmly anchored in the fibres and yarns. It is here they stay – not in the environment



– throughout the total life cycle of the materials. And this is a lengthy one, since Trevira CS fabrics have a long working life.

Flame retardant Trevira fibre and filament yarns are certified to Oeko-Tex Standard 100 and here attain the highest rating, i.e. they are suitable for baby articles.

Trevira is actively committed to the “Responsible Care” initiative of the Chemical Industry Association of Germany (VCI). The VCI takes as its aim the continual improvement of performance in relation to conserving the environment, to plant safety and protecting the health of users and employees – independently of legal requirements.



During production certain processes are carried out so that operations are safe and kind to the environment. For the most part fibre spinning takes place

directly from the melt product, achieving massive savings in energy consumption and CO₂ emissions. No solvents are involved in the manufacture of flame retardant fibres and filaments and no halogens or nitrogenous compounds used. Chemicals required in production are kept to a minimum in storage and during direct usage. Where at all possible, toxic ingredients are replaced by products that are less dangerous and more environmentally friendly.

On the basis of environmental standard DIN ISO 14001 and quality standard DIN ISO 9001, Trevira is continuously optimising its environmental targets. All employees, suppliers and customers are involved in the process as well.

Universally applicable



Today easy care, hard wear and good economic and ecological properties are functions inherent in every Trevira CS fabric.

They come well packaged in fabrics for drapes and decorative materials that have great strengths in design, in textiles for interior sun protection, comfortable upholstery fabrics, practical bedding textiles and technical textiles.

In the challenging contract market, as for example in hotels, clinics, offices, the cinema or the theatre, or on cruise ships, Trevira CS textiles set the standards. No wonder – since it was for this market that the flame retardant Trevira fibre was “invented” over thirty years ago. Nowadays Trevira CS textiles are increasingly entering private residences. Neither should this surprise – because the present generation of attractive, easy care Trevira CS fabrics can be very convincing here as well.

SPA



BAR

RESORT

RESTAURANT

LOBBY



CLUB

THE FABRIC TO WELCOME GUESTS

Trevira CS – the synthesis of design and function in hotels and restaurants. A hotel guest may always expect to receive service and safety at the place offering the accommodation and in which he or she has placed their trust. And in this respect it is irrelevant whether one is talking about a luxury hotel or a privately run guesthouse. Textile furnishings have a decisive role to play here. They are not only part of an aesthetic concept, they also contribute substantially to safety.





In most cases they have to comply with safety regulations laid down in law. With Trevira CS fabrics every textile element in a hotel can be designed safely: drapes and decorative fabrics, blackout materials, interior sun protection, upholstery materials, bed covers, decorative elements such as cushions or trimmings, mattresses, bed and table linen. Trevira CS fabrics fulfil worldwide all the important fire safety standards demanded in hotels and restaurants – in the lobby, hotel room, the bar or in the club, and in restaurants and conference centres.

The decoration and furnishing of hotels brings about many different challenges. Depending on the requirements of the contract customer, hotel designers move in the area of tension between implementing new design trends and traditional patterns of décor. The furnishing and decorating is almost always carried out in the context of strictly limited budgets. While contract fabrics have to meet all these demands, yarn and fabric developers have made considerable progress in recent years. The selection of materials available on the market is so comprehensive that virtually all designs can be realised. And this holds true without abandoning textile properties, such as easy care, resilience and longevity.





With many hotels, sustainability is a subject that comes into play in selecting materials and products. Many experts see sustainable design as the most important trend in the hotel industry. "Green products" are in demand, but with them, however, one would not want to introduce any compromises in design. To accompany their flame retardant properties, textiles must be able to demonstrate a manufacturing process that is environmentally friendly and makes sparing use of resources, and ultimately one that is economic and energy saving for the user. Fabrics must not contain any toxic substances either and they have to be recyclable in a manner that is compatible with the environment. It is good to know that Trevira CS fabrics satisfy all these criteria.



Trevira CS – because hotel design and furnishing are matters of trust.

HEALTH CLINIC



HEALTH +
CARE

HEALTH

MEDICAL PRACTICE

HOSPITAL RETIREMENT
HOME

CARE HOME INSTITUTION

CARE HOME
MENTAL

THE FABRIC THAT'S GOOD FOR YOU

Trevira CS – safety textiles for interior design that is patient-oriented. Hospitals, clinics, medical practices, rehab and care institutions, retirement homes, design and furnishing for assisted living, hospices, mental health institutions ... The list of items that make particularly high demands on the functional qualities of their textiles, is a lengthy one. These are demands that cover both preventive fire safety and also specific wishes in terms of easy care, hygiene and appearance.





Trevira CS materials come with many plus points. Trevira CS fabrics in their antimicrobial variant are of particular interest for use in the hospital and care sectors, since they combat the spread of microbes. In addition to flame retardant properties, Trevira CS Bioactive textiles possess an active agent based on silver, which is firmly integrated in the fibre raw material. The additive exercises a permanently antimicrobial effect that is not affected either by washing or usage. The effect works on the fibre surface, yet the antimicrobial agent does not migrate into the environment. It can also be demonstrated that Trevira CS Bioactive effects no change to skin flora and is thus compatible with the skin. Trevira CS Bioactive textiles are consequently ideal for use in areas where there is strong emphasis on cleanliness and freshness. It goes without saying that both flame retardant and antimicrobial Trevira fibre and filament types hold the Oeko-Tex Standard 100 certificate and are thus free from toxic substances.



Anwhere textiles require frequent washing there are questions raised about factors like easy care and economy. Trevira CS safety fabrics are easily cleaned, remain durable and keep their shape despite frequent washing. In the wash process they absorb only slight amounts of water – less water means at the same time fewer detergents and a drying cycle that is evidently shorter, and therefore energy-saving. Resistance towards current methods of disinfection is another point worthy of notice, one that predestines Trevira CS fabrics for use in the hospital and care sectors.





Textiles need to have many functions under hospital conditions. But even so, one should not underestimate their aesthetic function. The sick and those in need of care often suffer from restrictions on their mobility and sensory capacities. They have an increased need for safety and orientation. Nowadays we are aware that an environment geared to patient needs can give positive support to the healing process. There are also areas where living and care are blended together, of increasing importance for the future, and much is dependent here on creating an environment that is carefully conceived, considering the psychology of aesthetics and colour. Design, coloration, and haptic qualities of the textiles can be vital factors in furnishing and orientation. By drawing on Trevira CS collections specially geared for use in the hospital and care sectors, it becomes possible to decorate and furnish these institutions in a way that takes account of such functions and at the same time discover new value in the concept of the "feel good factor".

Trevira CS – for the place that makes you feel good.



CONFERENCE ROOM

SCHOOL

EXHIBITION

PUBLIC
AUTHORITY

WAITING AREA

CONGRESS

CENTRE



OFFICE/PUBLIC
SPACES

FABRIC COUNTERS

THE GREY ROUTINE OF OFFICE

Trevira CS – intelligent system solutions for the modern world of work. Designing business premises, administrative buildings and public areas like exhibition halls is asking much of interior designers. Choice of colours and materials, taking account of the acoustics of space and of distribution of light, all play a particular role here. Those present in such surroundings should feel well and be able to concentrate on their job.





Often these areas also have a representative function that reflects the identity of the décor in question. With Trevira CS fabrics the interior designer can satisfy the demands involved in creating such areas, in offices and public spaces, and can do so with flexibility.

Upholstery fabrics for furniture are extremely durable and withstand stresses of all kinds in terms of wear and resistance to abrasion. Shape retention is extremely good, as such materials show no creases, even when used in contract conditions. Colour brilliance and good fastness to light qualities counteract the grey, daily routine of office. Breathability and good moisture conductance are further plus points, as they ensure good comfort levels for those seated.

Optimising privacy and sun protection present further modern challenges for the interior designer. Vertical blinds, roller blinds and sliding panels in Trevira CS quality offer solutions here. These products are made on the basis of a bicomponent yarn that not only produces fabrics that are flame retardant, but at the same time makes them stiff. They can also be crushed, pleated or shaped in other ways. In addition to the pure function of interior sun protection, these textiles provide an aesthetic response to the demands of modern architecture which frequently plans to include large areas of glass.



Room acoustics is one of the factors with a decisive impact on the working environment. Special Trevira CS collections embodying a function that is demonstrably sound deadening have been specifically developed to counter an intrusive background of noise effectively. According to the requirements, curtains, room dividers, wall and ceiling coverings can be brought into play.

Depending on their purpose, textiles in exhibition construction must often be sprinkler-suitable, as well as flame retardant – and specialist manufacturers and dealers can make these technical textiles available in Trevira CS qualities as well. Elasticity is another property often required for textiles in exhibition construction, as they are frequently stretched – and need to adjust to both angular and organic shapes. In the process they must keep their shape, must not crease, and they have to be printable. There are textile solutions here, too, with Trevira CS fabrics that have been conceived for this specific purpose.

Trevira CS – multifunctional and with the design strengths for a working environment that motivates.



STADIUM
THEATRE
MUSEUM

ENTERTAINMENT

CONCERT HALL

CINEMA



FABRIC

TO SET THE SCENE FOR EVENTS

Trevira CS – safe and high performance textiles for the event sector. Theatres, cinemas, concert halls, sports arenas and museums – anywhere lots of people gather to participate in an event, there are stringent fire safety regulations to observe. This is a good thing, since such places must above all else be safe. Visitors take this for granted – but at the same time they also expect a pleasant and exclusive ambience. Here Trevira CS materials are in every sense ready to take the stage.





Hardwearing, breathable Trevira CS upholstery materials form the basis for outstandingly comfortable seating. Only a slight amount of maintenance is required to retain quality. Spots are easily removed. Trevira CS fabrics are resistant to wet rub and do not stain other materials. They retain their shape and are non-crease, enabling them to sustain many years of the hardest wear, always accompanied by the in-built function, flame retardancy. This is never lost during the whole lifespan of the fabrics.

Wall coverings are a factor that is particularly important for the interior design and decoration of theatres and cinemas. Here they ensure optimal acoustic performance, coupled with a soft, relaxing atmosphere.

Trevira CS fabrics come into play both on the stage and backstage, as front curtains or for technical purposes.

In theatres with a rich history it is often the case that historic artwork needs to be maintained during refurbishment. In such cases, the versatile ranges of flame retardant yarns are second to none in offering the possibility to reproduce traditional designs and qualities.



Where many people gather together to hear a concert or to watch a play or a movie, there are high demands on acoustic provision in halls and auditoriums. Textiles can help to optimise the perception of language and sound – Trevira CS fabrics do not only meet the legal safety requirements for public spaces, but also provide a relaxed atmosphere of “cushioned sounds”.

Trevira CS – to ensure the success of the event.



TRANSPORT

LUXURY LINER

AVIATION

TRAFFIC

MARITIME SHIPPING

RAIL

THE FABRIC THAT LINKS DESTINATIONS

Trevira CS – under way in comfort and safety by all modes of travel. By land, sea and air – safety comes first. Especially since this is often stringently prescribed, Trevira CS safety fabrics ensure that the textile furnishings of modes of transport do not catch fire, either in the event of accident or through negligence. Over recent years there has also been a noticeable development to furnish and decorate the interiors of transport modes in high quality style.





Certain apparently incompatible principles have to be reconciled in selecting materials: sedate luxury and high levels of fire safety, convincing quality of design and high levels of resilience, attractive looks and straightforward maintenance, fastness to light, colour brilliance and lasting durability. Here Trevira CS is a convincing choice, with its ideal material properties and collections that display great strengths in design.

One factor is also persuasive in the transport sector and that is potential savings in terms of weight, something that is demanded from all materials employed, as it should produce cost reductions for the transport operators. Trevira CS can clearly score here, when compared with other textiles.

As in all modes of transport, there are special demands with regard to fire safety that apply to international rail traffic. Trevira CS materials satisfy the fire safety standards required and comply with the limits for fume toxicity. The same applies to international air traffic: Trevira CS meets fire safety standard FAR/CS 25.853. Airbus Standard ABD 0031, which sets limits for the development of toxic fumes. Trevira CS clearly stays below these limits, since Trevira CS fabrics re-lease hardly any toxic fumes in the event of fire. They are also used as covers for seating, headrests and neck cushions, and for drapes and curtains, and in sun protection and bed linens in sleeper cars.





In conjunction with the official authorising centre, Trevira has developed a procedure to support its customers in certifying their textiles and it makes available all the documentation required. In this way flame retardant Trevira CS fabrics can be used without delay on board ship. Along with fire safety regulations, Trevira CS textiles meet all the requirements made by designers and architects with regard to an exclusive ambience for passengers on luxury liners.

Trevira CS – safe on the high seas, above the clouds and on the rails.

There are particularly stringent regulations in place to meet the special requirements in protecting passengers on cruise ships. These have international validity. Legislation here is based on the IMO (International Maritime Organisation), which has set out in FTP Codes the requirements applying to burn tests. All textile elements in shipping have to comply with IMO directives – cabin furnishings, including bed linen, the interiors in sport and entertainment areas, interior sun protection, and wall coverings.





SLEEPING

EATING

**PRIVATE
LIVING**

PLAYING

WORKING

RELAXING

THE FABRIC THAT HAS COME HOME

Trevira CS – textiles for private homes that are easy care and strong in design. For over thirty years Trevira CS fabrics have proven their worth in the contract market – and not solely because of their flame retardant properties. To an increasing degree they have developed from pure contract materials to become fabrics for the private home. For a long time now this new generation of Trevira CS textiles has made its way into the high quality collections of fabric houses. Interior designers draw upon these when they create the décor for the private residence, but they are also available for all consumers via their furnisher and decorator.





The change from functional contract material to decorative furnishing fabric was made possible by the ever-growing range of flame retardant Trevira fibres and yarns, which offered fabric designers unlimited opportunities to translate their innovative ideas into reality. It was also possible to make clear improvements in the appearance of fabrics. In no way inferior to conventional materials in terms of design, they are also able to supply a number of practical benefits.



Trevira CS fabrics are extremely easy care. Even the most attractively elegant of them can go in the washing machine – and they do not lose their shape even after several washes. They are low-crease, which keeps time-consuming ironing to a minimum. It is easy to remove marks from upholstery, using traditional cleaning fluids and methods. Dry cleaning is also possible.

All Trevira CS textiles are noted for high colour brilliance and fastness to light. The materials glisten for a long time, just as they did on day one. In addition, the fabrics are extremely resilient and maintain their appearance over long periods, even with intensive usage. Upholstery materials withstand high levels of abrasion and do not stain other textiles.



Those in particular who would like their home to be safe are in the right place with Trevira CS. This is because Trevira CS fabrics are permanently flame retardant, offering long-term safety, and they are not affected in any way, either by age or usage.

There are over a thousand Trevira CS collections available worldwide, offering all furnishing materials that can be used in the private sector, i.e. drapes, decorative and upholstery fabrics. There are also numerous attractive collections in the interior sun protection sector, cutting a good figure in front of windows at home.

Trevira CS – live nice and safely and enjoy many practical advantages.

THE FABRIC THAT GIVES YOU THE EDGE



Trevira CS – a brand that focuses on partnership. Trevira CS is more than a product. Trevira CS is a brand that stands nowadays for flame retardant fabrics that have high quality and great strengths in design. So that all those active in the market are aware of this, we provide a network for our customers along the whole supply chain – from yarn manufacturer to interior designer. A variety of services are available to customers according to their needs. In this way we all enjoy the benefits in the market together, under the Trevira CS banner.

Trademark service



Trevira® is a registered trademark. Textiles bearing the Trevira CS brands are a guarantee of tested quality. After passing burn tests, textiles obtain trademark approval that ensures that they comply with requirements set out in our regulations. On application we can carry out additional tests for specific fields of application. A trademark agreement is a prerequisite for authorisation to use the Trevira brand and for trademark approval following successful testing.



Advisory

We offer support when it is a question of special applications for textiles and of burn and textile testing. We provide numerous certificates, surveys and test reports, which can assist in overcoming barriers to market entry. We can also supply segment-specific information and data on contract markets for customers and partners.



Internet services

On its internet page at www.trevira.com Trevira offers many services that all customers and partners find useful. Start point is the largest online fabric library for safety textiles worldwide – the site goes from Trevira Net to the download centre, which holds forms, certificates and Trevira product literature. Supplemented, of course, by a great deal of information on the Trevira CS product.

Trend advisory

We keep a collection of development samples ready for customers, which is made up of flame retardant Trevira yarns. This enables fabric manufacturers to assess the impact of the yarns in the textile material and obtain some input on the production of their own collections. Trevira also issues a trend colour chart available to customers and partners at no charge.

Sales support

We issue brochures, sales arguments and promotional material for customers' own use, which are available in several languages. Customers and partners can also obtain labelling gratis. In special catalogues we inform market participants along the chain about new collections. Appearances at trade fairs and other events, both at home and abroad, offer customers an attractive platform for the presentation of their latest Trevira CS fabrics. For customers and partners we also provide product training on Trevira CS.

THE FABRIC THAT CONVINCES



Trevira CS – all the arguments at a glance.

- Wide choice of product, many possible applications: curtains, drapes, bed textiles, roller blinds, vertical blinds, awnings, room dividers, furniture fabrics, wall coverings
- Innovative products through continuous further development of Trevira fibre and filament types
- Easy care, low-crease and dimensionally stable
- Short wash cycles at low temperatures save water, detergent and energy
- Resistant to current methods of disinfection
- High colour brilliance and fastness to light
- High resistance to rub
- Perfectly comfortable when seated due to upholstery fabrics with high breathability
- Flame retardant Trevira fibre and filament yarns are certified to Oeko-Tex Standard 100 (highest rating – suitable for baby wear too)
- Compatible with the skin
- Permanent flame retardancy through controlled modification of the polyester molecule, which cannot be lost due to wear, washing or age
- Permanently flame retardant without additional finishing agents
- No after-glow and only very slight development of fumes in the event of fire
- Safe due to trademark testing and approval
- Compliance with important international fire safety standards, e.g. B. DIN 4102 Part 1/B1; NF P 92503-507/M1; BS 5867, Part 2 Type C; UNI VF 8456/8457/1; EN 1021 Parts 1 + 2 and EN 13772 + 13773 Class 1
- Support through general test certification
- Uniformly high quality levels through constant trademark monitoring by Trevira
- In addition to contract business also ideal for use in the private sector

Picture credit from left: page 2: Trevira; page 6: Trevira; page 7: Osborne & Little, SoFar/SoNear, Schoepf, Nya Nordiska, Lelièvre; page 8: Backhausen, Backhausen, JAB, Lelièvre; page 10: drapilux; page 11: Trevira, Kadeco, Kadeco, drapilux; page 12: drapilux, MHZ Hachtel, Création Baumann, Trevira; page 14: Trevira; page 15: Verotex, MHZ Hachtel, Junkers & Müllers, Backhausen; page 16: Gerriets, procedes i-d, Verotex, Coulisse; page 18: Gerriets; page 19: Backhausen, Backhausen, Gerriets, Schoepf; page 20: Gerriets, Gerriets, MHZ Hachtel, Schoepf, Sekers; page 22: Spandauer Velours; page 23: Blue Air, Deutsche Bahn, Deutsche Bahn, Deutsche Bahn; page 24: Rohleder, Kobe, Backhausen, Kobe; page 26: Création Baumann; page 27: JAB, Lelièvre, Création Baumann, Création Baumann, Kobe; page 28: Trevira, Création Baumann, Zimmer & Rohde; Nobilis; page 30: Trevira