



evguard[®]

**EVA interlayer
for laminated safety,
security & design glass**

DESIGNED,
DEVELOPED
AND MADE
IN GERMANY





Innovation is the key to any new business venture, as it is the aim to create something new which promises the greatest success. In design and architecture there are no limits for creativity. So there is, likewise, an infinite need for new ideas and innovation. The construction industry is similarly driven by a desire to push boundaries and defy the elements. With **evguard**[®] we can offer the right product and enable our customers to realize their most imaginative ideas.

For more than 30 years, we have provided the optimal film to meet individual needs of our customers. As one of the first processor of plastic films, we have combined the properties of various polymers in one film, thanks to our multi-layer technology.

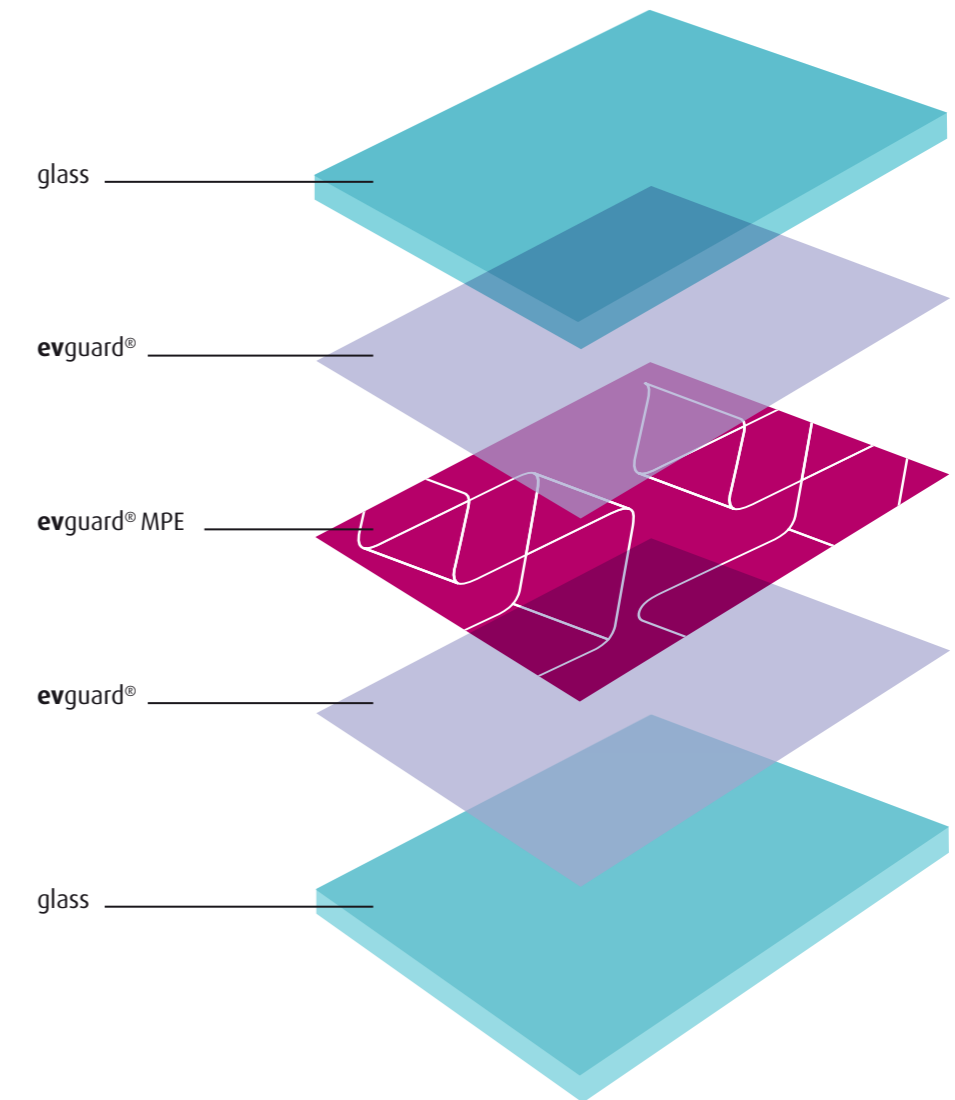
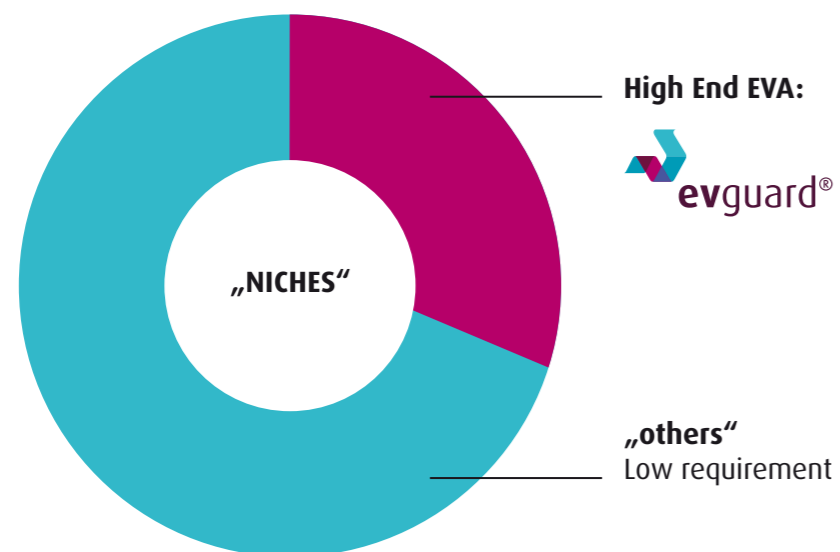
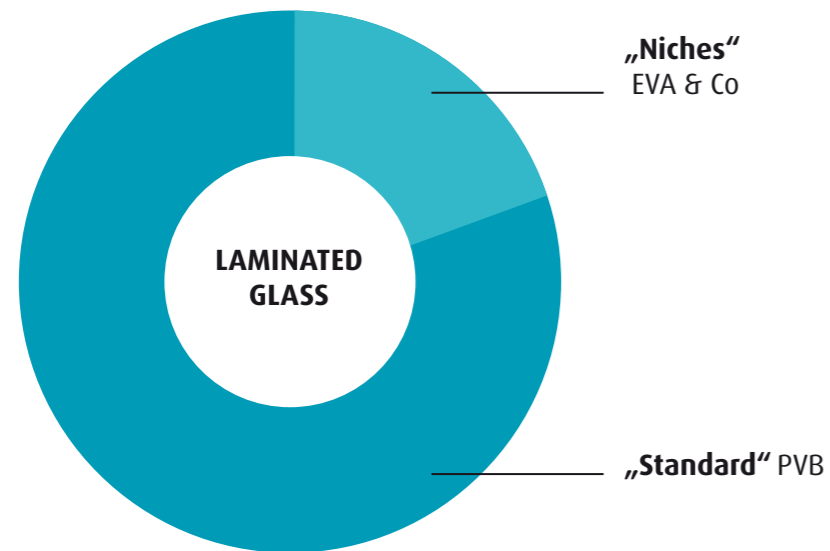
The EVA film **evguard**[®] is the result of many years of research and development. Manufactured in Germany using European raw materials, we deliver consistent quality every time.

What is evguard®?

evguard® is an elastic interlayer film for laminated glass. Based on an ethylene vinyl acetate copolymer that when heated, creates a highly cross-linked, three dimensional composite, bonding the glass together to manufacture certified, safety and security glass.

With its outstanding properties, evguard® is at the forefront in the premium sector of laminating films for the glass industry. Having successfully carried out impact testing using the pendulum and drop ball methods we have also tested for weathering performance and sound reduction values.

With all current certifications for Europe, North America and Germany passed, we offer our partners a value added product.



Folienwerk Wolfen GmbH also offers a PET-MPE film („100 % modified copolyester“). In combination with the evguard®, evguard® MPE establishes an additional advantage in terms of stability, durability, shear modulus effect and printability. evguard® and evguard® MPE can be processed by using the existing suggested cycle times for normal lamination.

The laminated glass withstands high thermal loads. evguard® MPE can be incorporated into the composite as a transparent, colored or printed interlayer, thus providing the desired design. To summarise: using evguard® and evguard® MPE together, a high impact resistant glass can be produced and if needed this can be printed on to make a decorative safety/security product.



The cross-linking and quality make the difference

Glass creates a sense of openness and transparency, and so is progressively becoming more and more important, for example, in architecture. The transparent building material is increasingly integrated in the façade engineering, both as individual surface and as entire glass front. These applications put great demands on the laminated safety glass that traditional materials usually cannot meet.

During the lamination process, **evguard®** undergoes the crosslinking process and remains in an irreversible state between the glass panes of the laminated safety glass. This cross linked state of **evguard®** prevents the film from losing its stiffness in the case of wind and heat. Compared to polyvinyl butyral (PVB), a thermoplastic laminating material that softens at higher temperatures, this is one of the most significant benefits of **evguard®**. Façades, especially frameless glass fronts, thus remain stable over a broad range of environmental influences. As a result, **evguard®** provides greater stability and improved optics of the laminated glass. Another essential feature plays an important role: compared to PVB, **evguard®** is less hygroscopic.

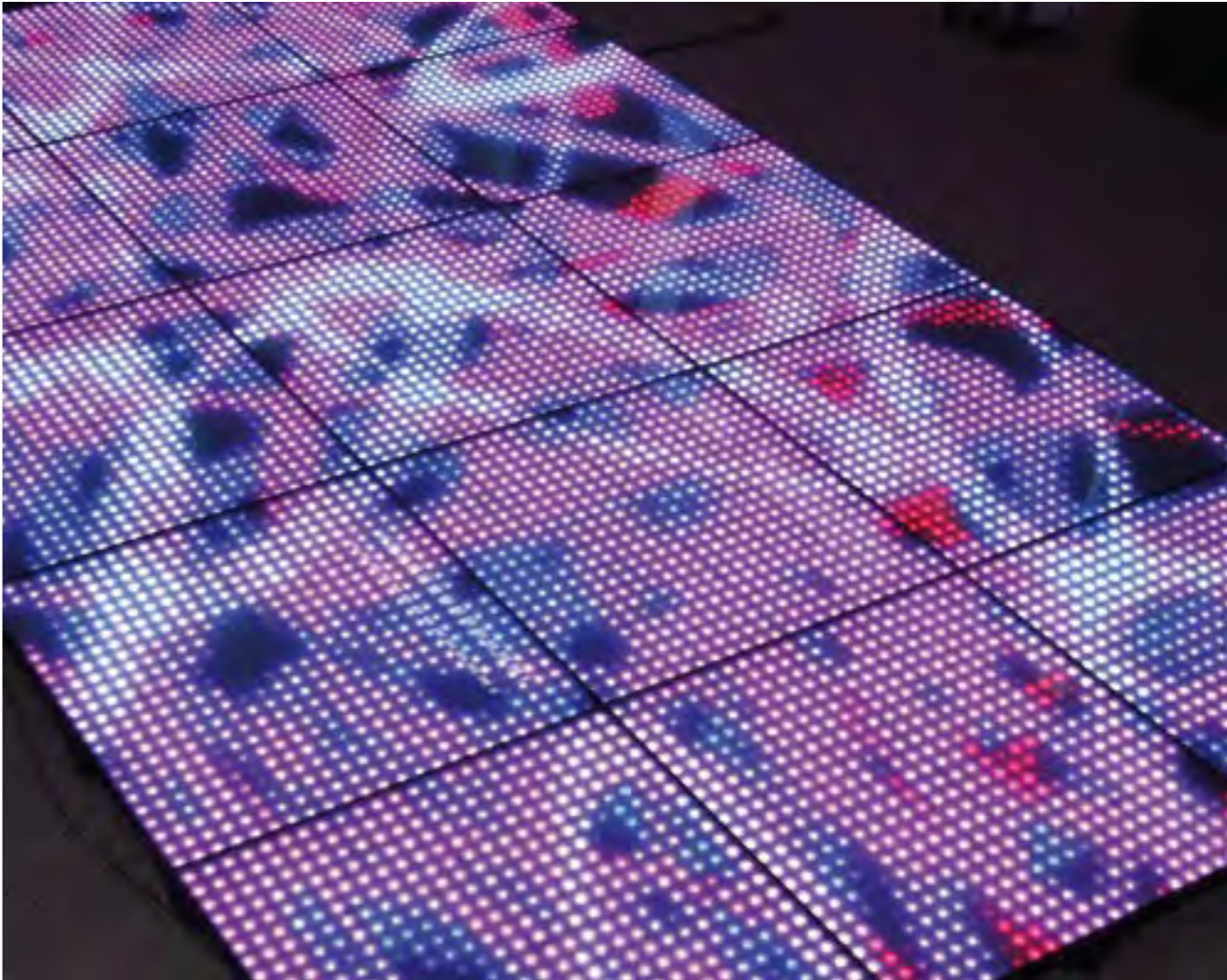


Diverse processing possibilities

Above all, **evguard®** stands out due to excellent processing possibilities even at lower temperatures. Temperature-sensitive inserts can be laminated into the composite – whether colored films, photos, marble, sandstone, metal mesh, coffee beans, blades of grass, bamboo or wherever your imagination takes you.



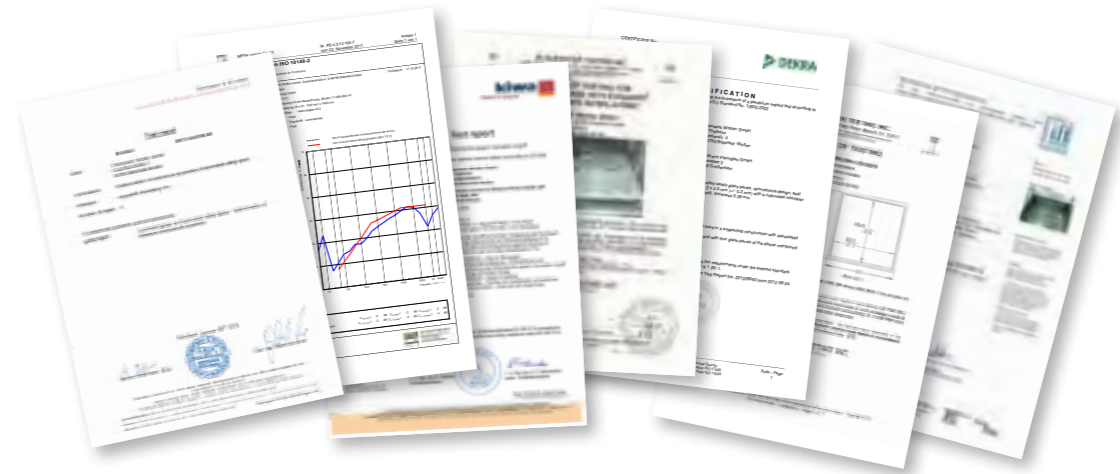
evguard® can be laminated both in a vacuum and in an autoclave process.





Certified with certainty

Laminated safety glass with **evguard®** has been tested and certified by several independent testing institutes. Worldwide!



Further information as well as an interactive map with our worldwide distributors can be found at: www.evguard.de/en



Folienwerk Wolfen GmbH

With the **evguard®** series, we have created an innovative product with diverse design and processing options in façade engineering and glass design. For more than 30 years, we have manufactured and supplied high quality plastic films on PET, PC and PLA basis. This portfolio is completed by films from ethylene vinyl acetate (EVA). The company was founded by employees of the traditional Filmfabrik ORWO, and currently employs about 160 people generating an annual turnover of approx. 40 million euros.

Folienwerk Wolfen is also internationally known for the target-group-specific production of films for blister packages and smart cards as well as for films for medical devices. From our location in Bitterfeld-Wolfen, near Leipzig, we deliver to customers in more than 60 countries. The share of the international sales is around 70 percent.

handed by:

date:



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Disclaimer

Our information about our products and processes is based on extensive research and our considerable experience in the field of applied engineering. We provide this information, which to the best of our knowledge is correct, orally and in writing. In doing so, we do not assume any liability other than the liability agreed upon in the respective individual contract, and we reserve the right to make technical modifications in the course of our product development. However, this shall not release user from its obligation to verify the suitability of our products and processes for its own use. Purchaser's specifications of intended use shall only be binding, if we, at the time of contract conclusion, have confirmed in writing that the delivered goods are suitable for the use intended by Purchaser. This shall also apply to the protection of third party industrial property rights and to applications and processes.