



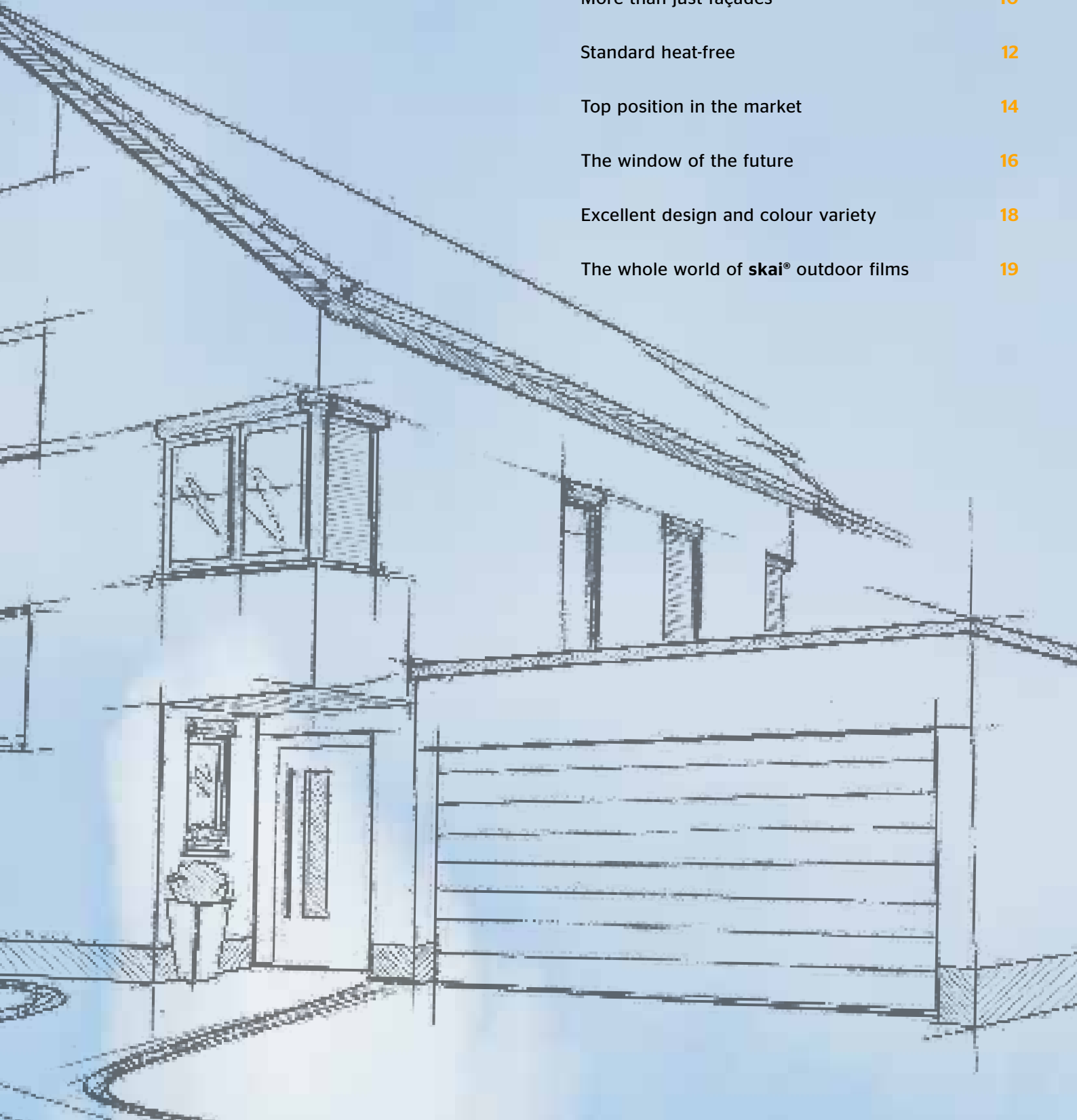
## **Attractive Exterior**

Design Meets Function

**Benecke-Hornschuch  
Surface Group**

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When the vinyl window made its triumphant debut more than 30 years ago, it was only available in one colour: white. Today, builders, architects, and planners can choose from a multitude of colours, embossings, and designs for window profiles, door leaves, garage doors, and façade elements. Coating with weather-resistant film makes this possible, which not only beautifies the construction element, but also protects it over the long term. As a surface specialist and innovation leader, we at Continental have played a big role with our **skai®** outdoor film in the increasing acceptance of the use of films. For more than 20 years, we have stood for ground-breaking problem solutions in outdoor applications. In close dialogue with the technology and development department of the customer, we precisely tailor the films to the

needs of the market. Years ago, we introduced the patented **skai® cool colors** technology – still the standard. Our extensive warranties increase the trust in the performance of the outdoor film. As a result, more than 30 percent of the window profiles in Germany are now covered in film. In other countries, the percentage of film coated surfaces is comparable, with an increasing tendency. We also utilize our expertise in leading expert committees such as the RAL Gütegemeinschaft (RAL Quality Assurance Association, Germany) and American Architectural Manufacturers Association (AAMA). We are active in the expert workgroup and participate in the drafting of future quality guidelines. But in addition to technical know-how, we also lead in design: our innovations set trends for the branch.

## At a Glance: skai® Outdoor Film in Use







# Perfect Finish for Windows

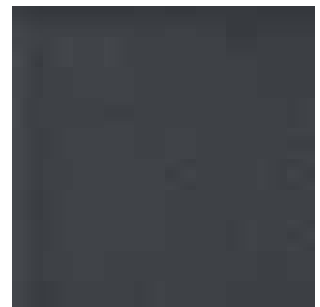


When designing vinyl windows, window profile film is practically unbeatable. Film coated profiles have established themselves with leading German and European system providers. Convinced of the many advantages of the film, they have expanded their manufacturing techniques to include profile wrapping. Since the early years of the film at the beginning of the 1990's, the film coating of PVC-profiles is an economical, long-term solution and is also sustainable thanks to the recyclability. Innovations and an ever-expanding warranty contributed to this, as well as the guidance, coordination, and mediation by the RAL Gütegemeinschaft (RAL Quality Assurance Association). Above all, however, the market and the final consumers recognized the opportunities and possibilities that window profile film offers. In addition to the variety of colours and designs, which did not exist in vinyl windows before the film, our

**skai®** products are impressive due to their longevity and ease of cleaning. An additional advantage is the homogeneity of the surface, regardless of the construction element the film is used on. When the builder decides on a design, the windows perfectly match the house door and the garage door - everything looks flawless.



F4361014  
Alux DB 703



F4367003  
anthrazitgrau SFTN







# Color and Design for Doors



Windows, doors, and garage doors have a major impact on the overall appearance of a building. In order to ensure a homogenous look with different construction elements, the advantage of film coating must also extend to other components, in addition to windows. For this reason, we also offer the appropriate outdoor films for entrance doors and garage doors. For example, a colour or a design can be utilized for various construction elements in a homogeneous way. Almost all of the designs are part of our **skai®** collection that is available from stock, including a large selection of plain colors, wood designs, Metbrush, and

Alux, as well as the designs of our new Mattline. Our variety of designs is reflected by the market, where we are a trendsetter.

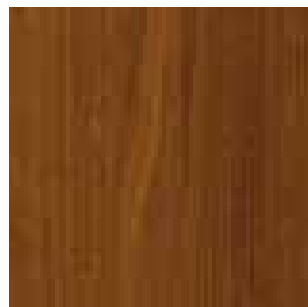


F4363051  
Teak terra



F4366048  
basaltgrau SFTN matt





F4363042  
Noce Sorrento balsamico



F4363043  
Cherry amaretto

# More than just Façades



In addition to the use on windows, house doors, and garage doors, outdoor films are also increasingly demonstrating their advantages on additional construction elements. If they are used on curtain walls, they brave wind and weather there, are maintenance-free, and ensure higher durability. As with window profiles the same variety of designs and colours can be selected from for façade elements as well. For example, a very natural look can be achieved with a wood design. Or a technical appearance can be achieved with metal designs, which look like powder coated aluminium or brushed steel. If desired, a design can be precisely coordinated with the various elements, resulting in a thoroughly homogenous design of the entire building.



F4363062  
Walnuss kolonial





# Standard heat-free



Dark surfaces heat up more than light surfaces in the sun. A fact that plays a role for vinyl window profiles, especially in southern countries. The more heat is transferred to the profile system, the more unstable it becomes. And the darker the colour, the greater is the risk of damage to the window in hot regions. But because the market also demands dark colors and designs, we developed the **skai® cool colors** technology. This innovation ensures that the window heats up noticeably less. Special pigments reduce the thermal effect of the near infrared radiation of the sun. Thanks to the patented **skai® cool colors** technology, the predominant share of this radiation does not penetrate into the profile, but is reflected by the surface. The penetration of heat into the profile is clearly lower, the surface remains "cool" and the form of the window remains stable. Thus, **skai® cool colors** extends the life of the window. Now, we equip about 80 colors and designs with cool colors technology.

The original, which premiered in 2006, is still the standard and has spawned numerous copycats. A further development is **skai® cool colors** plus, which is additionally equipped with a white base layer and thus is even more effective. In this way, a dark base is completely neutralized. Therefore, it is especially suited for extreme climate conditions.



F4365021  
tannengrün





# Top Position in the Market



There are many good reasons that we have a leading position in the market with regard to quality. One of these is: we often do more than necessary. For example, all films are subjected to a time-lapse weather simulation in comprehensive tests in our own weathering centre. The latest generation of outdoor films are rated around 50 percent higher than earlier film types with regard to weather performance. A total of eight xenon test devices are available in our own weathering centre in Weissbach. Here, up to 1,700 samples can be weathered at the same time. Worldwide, we also conduct outdoor weathering at four sites – in Southern France, Florida, Arizona, and Australia. We regularly present the latest state of technology at the leading specialized trade fairs at home and abroad. We visit the most important conventions and conferences and participate in

expert work groups within the contexts of the RAL Gütegemeinschaft (RAL Quality Assurance Association) that deal with the technical development of the film coating of tomorrow.



# The Window of the Future

Together with the RAL Gütegemeinschaft and in close cooperation with our customers, we constantly develop the characteristics of our **skai®** window profile film further and thereby make a major contribution to the design of the window of the future. With the new RAL quality and test provisions, a new level of quality is achieved, as 10,000 hours of minimum weathering time are now prescribed. We already voluntarily weather the films 15,000 hours. This corresponds to a period of almost 20 years in a central European climate. As the developer of **skai® cool colors** technology, which achieves impressive results, we are a forerunner in the area of heat reduction. Thus, we ensured that this topic was additionally included in the RAL list of criteria. We will also be active within the RAL Gütegemeinschaft in the future and develop the configuration of the quality guidelines further, in order to permanently give the overall topic of film lamination stability and sustainability. We pursue a holistic approach with the window of the future and are therefore in close contact and regular exchange with manufacturers of adhesives/primers, machines, protective films, and touch-up pens. In order to make a statement, we have increased the warranty up to 10 years worldwide. In practical application, the actual useful life of the film coating already corresponds to that of the window itself.



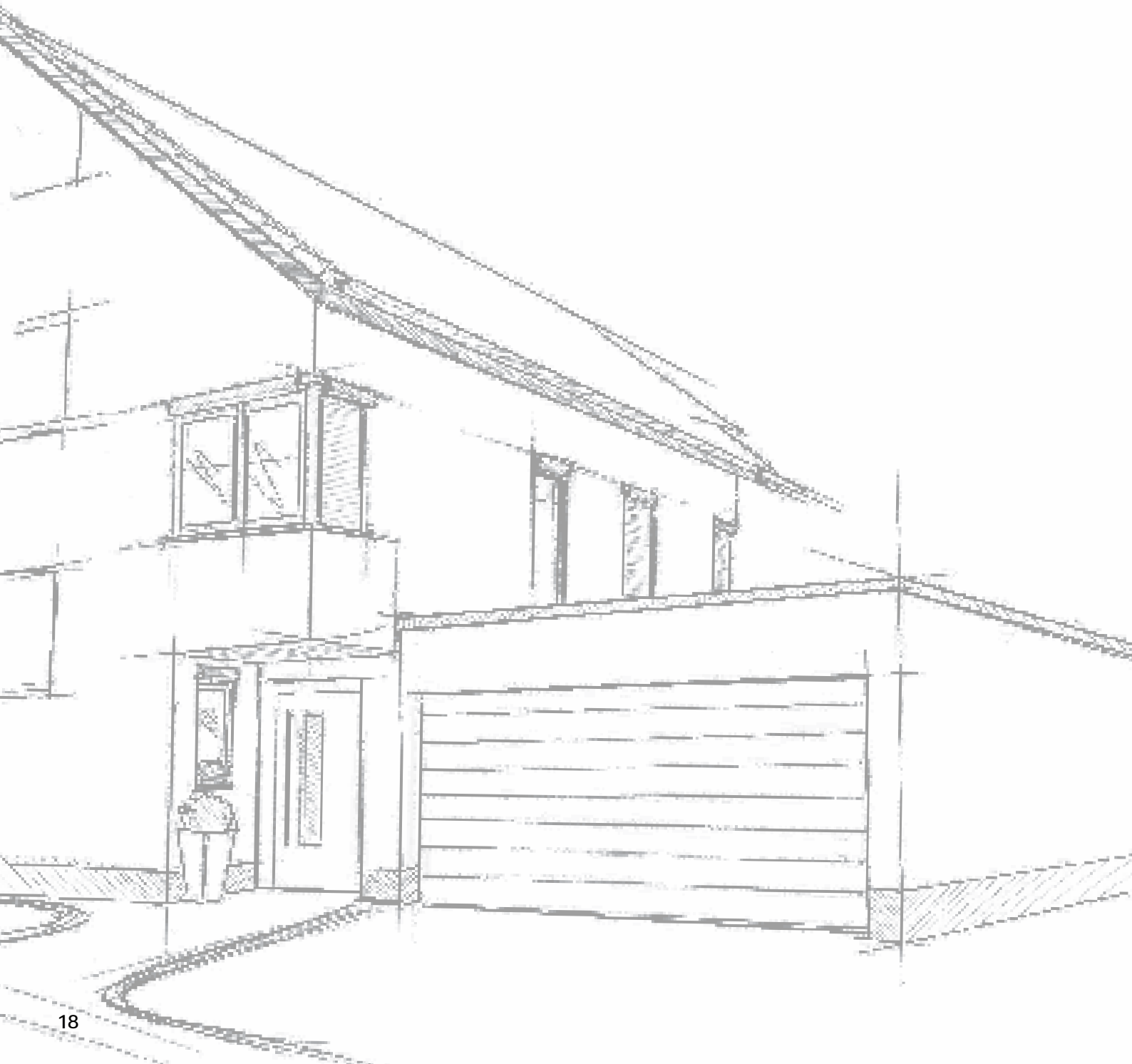




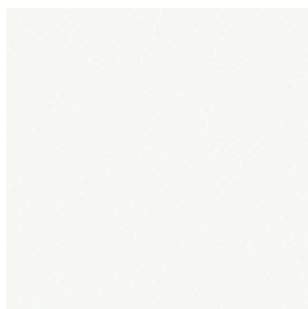
# Excellent Design and Color Variety

As a surface specialist, our goal is to create accents in the design and the outer appearance of the building. In the design aspects of colour, design, and embossing, we create a multitude of possibilities for this. In the Design Center that was founded in 2011 in Weissbach, 16 designers research the latest trends across all business units. Impulses from other **skai®**

business units act as the model for innovations in the area of outdoor film in the form of new designs and embossings. A series of international awards, i. e. the red dot, iF design award, Interzum Award and German Design Award give proof of the excellent performance in surface design.



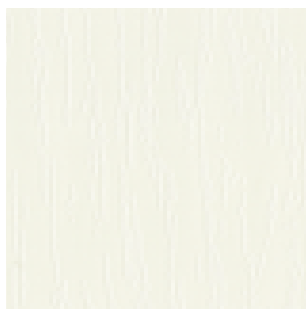
# The whole World of skai® Outdoor films



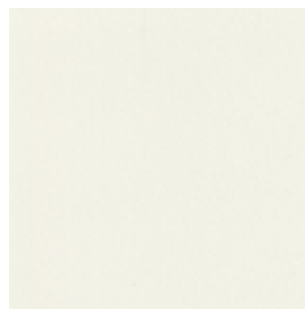
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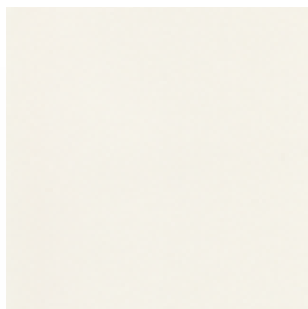
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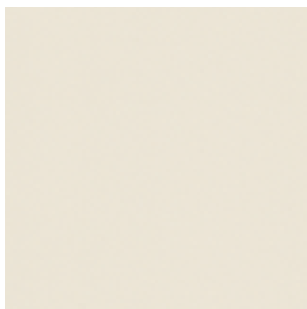
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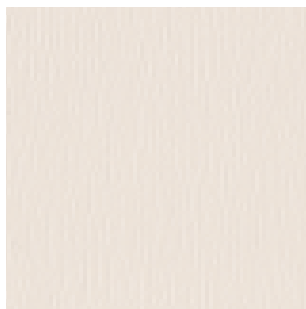
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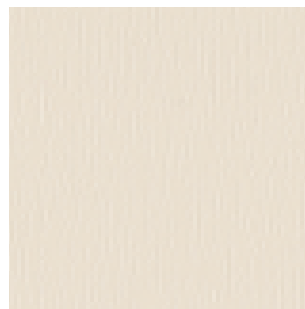
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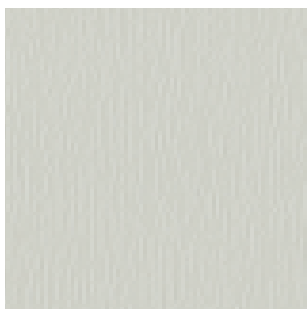
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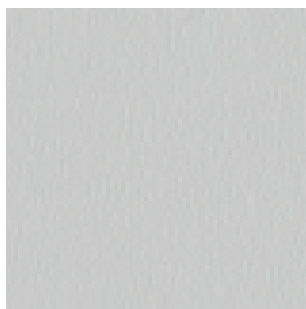
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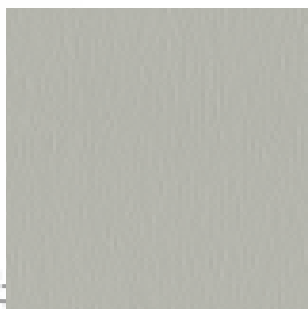
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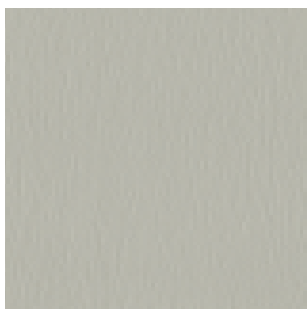
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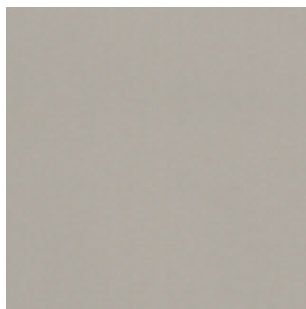
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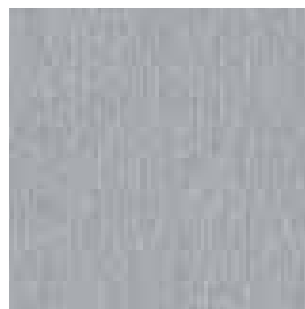
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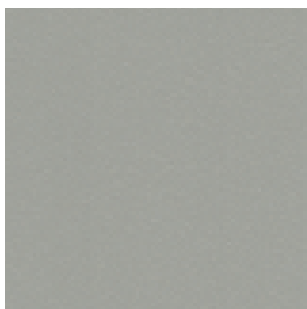
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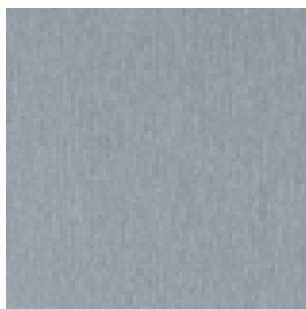
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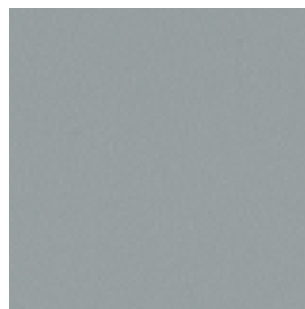
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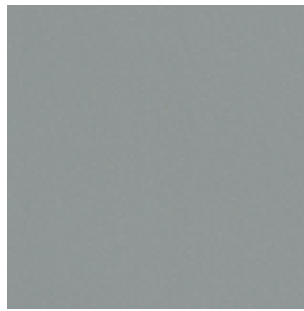


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# The whole World of skai® Outdoor films



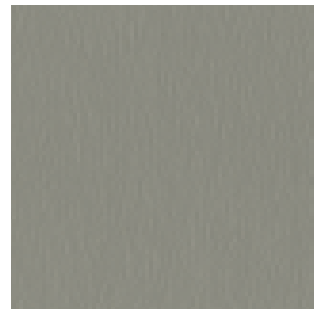
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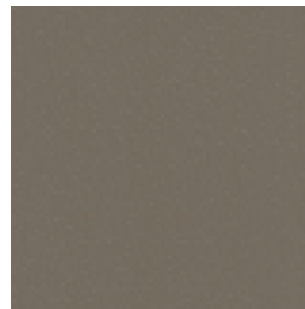
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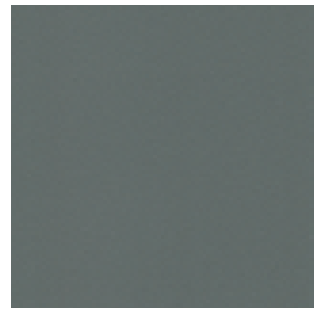
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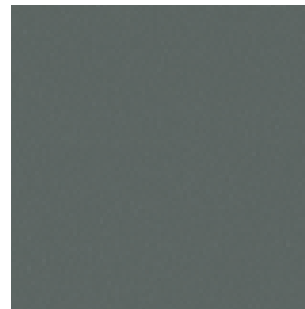
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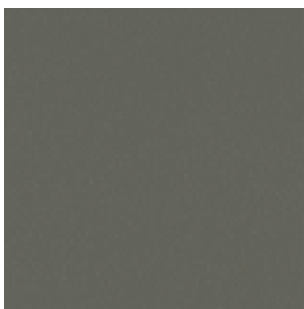
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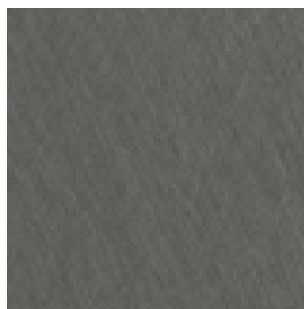
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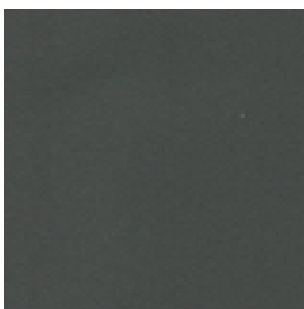
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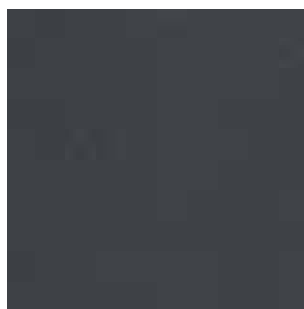
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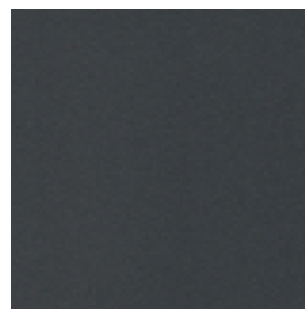
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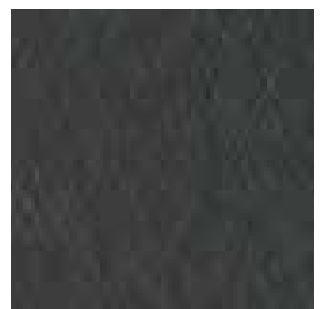
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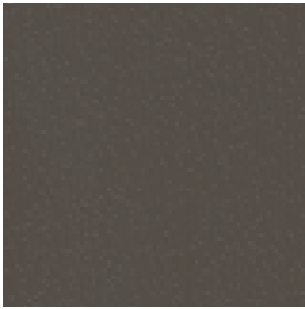
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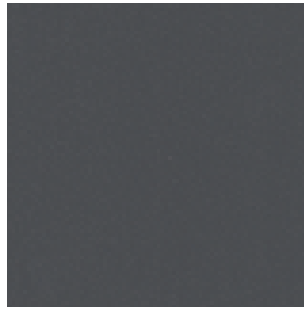
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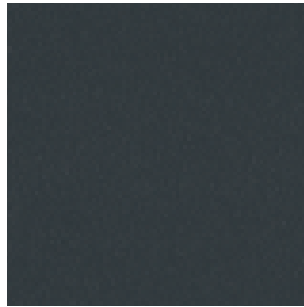
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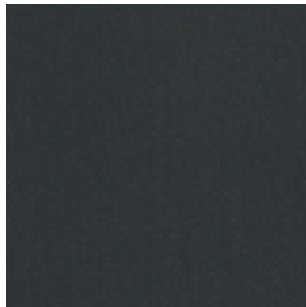
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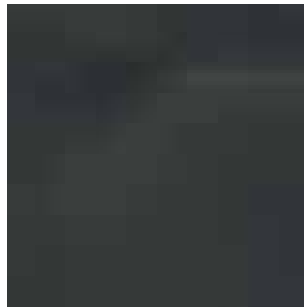
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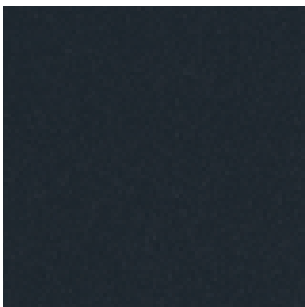
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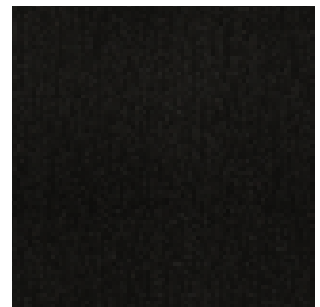
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# The whole World of skai® Outdoor films



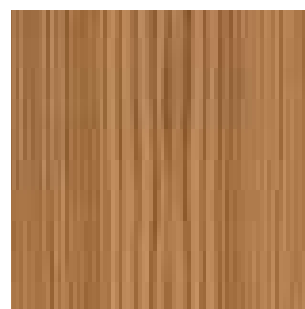
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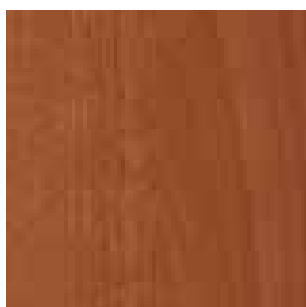
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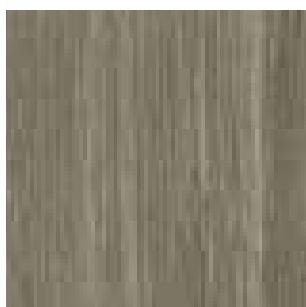
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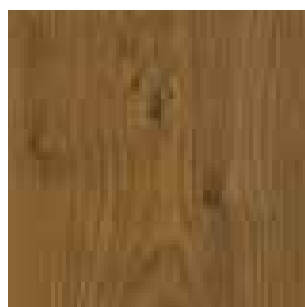
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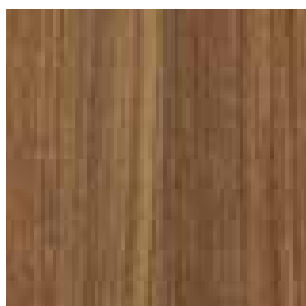
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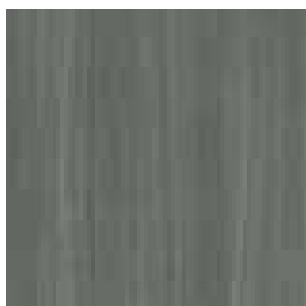
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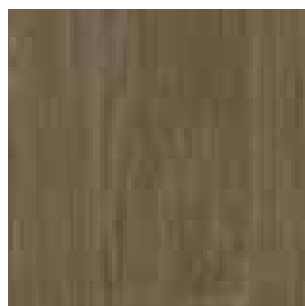
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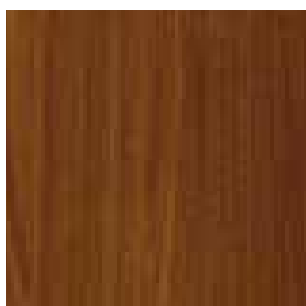
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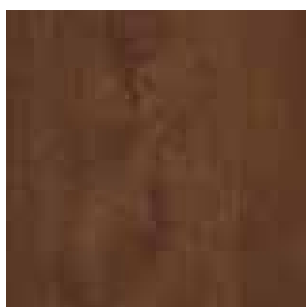
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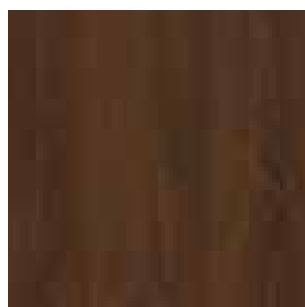
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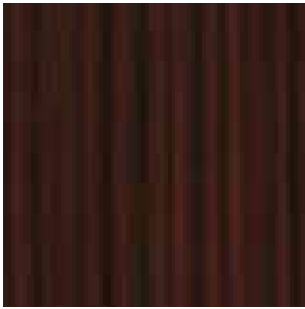
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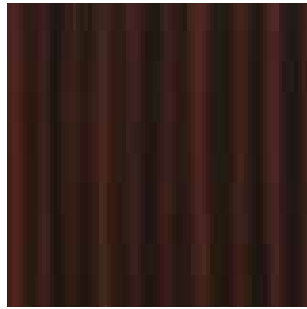
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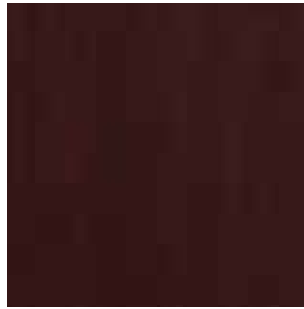
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Walnuss terra



F4362007  
Montana Eiche tabak

# Benecke-Hornschuch Surface Group

Market segment  
Exterior

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## Your local contact

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