



WATCH YOUR BACK

a new generation in carpet backing



LESS EMISSIONS | REDUCED FLAMMABILITY | ODOURLESS

CENEVA

Ceneva® is the world's first carpet backing containing no styrene-butadiene. Instead, Ceneva® uses a compound based completely on vinyl acetate ethylene (VAE). VAE provides a number of advantages to the final product and is the solution for those who are environmentally conscious.

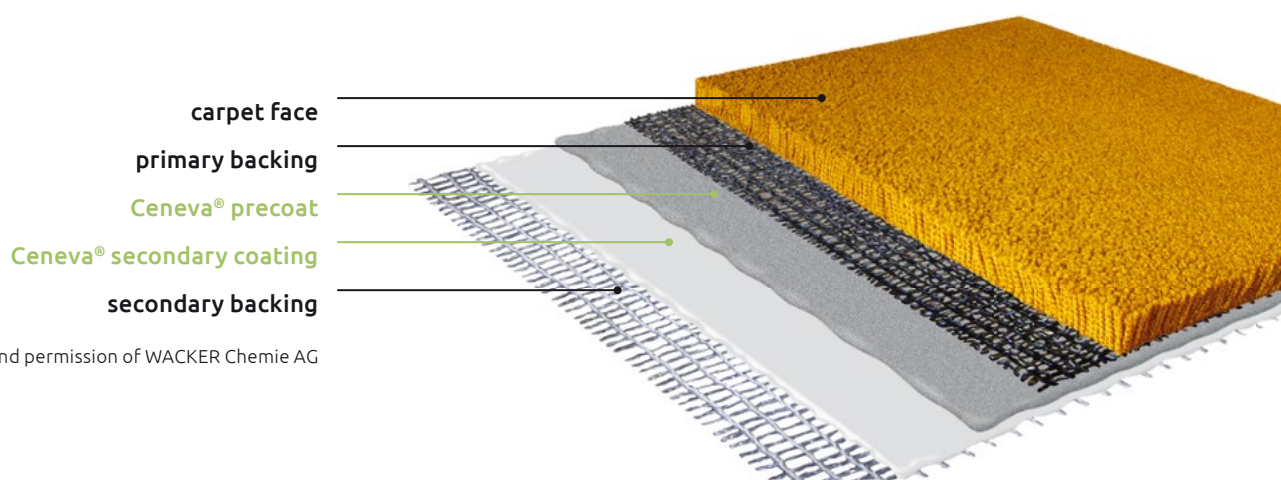


Ceneva® backing is 100% SBR-free and improves the final product

The production of tufted carpets consists of several steps of which "backing" is the final. The aim of the backing process is twofold; the primary backing fixates the yarn to the base cloth and the secondary backing improves the lifespan of the carpet. For this, high quality synthetic rubbers (latex) are used. Traditional compounds used for backing carpets contain a latex from styrene-butadiene rubber (SBR). SBR is a family of synthetic rubbers, derived from styrene and butadiene and is commonly used as a replacement for natural rubber.

A NEW GENERATION

SBR has for decades been unrivaled, however, specific questions raised by different environmentally conscious customers led to the decision to look for a substitute backing. After a period of extensive research and testing, Ceneva® was developed, a backing based on vinyl acetate ethylene (VAE). Backing products with Ceneva® has two advantages: it is 100% SBR-free and it also improves several aspects of the final product.



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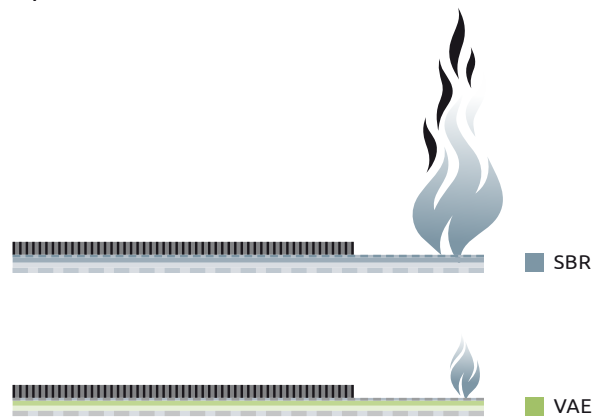
THE ADVANTAGES

Vinyl acetate ethylene is produced from acetic acid. In the 1960s researchers succeeded in creating a binder that is now used in a wide range of applications including adhesives, low-odour interior paints and nonwovens. The use of VAE in carpet backing has several advantages:

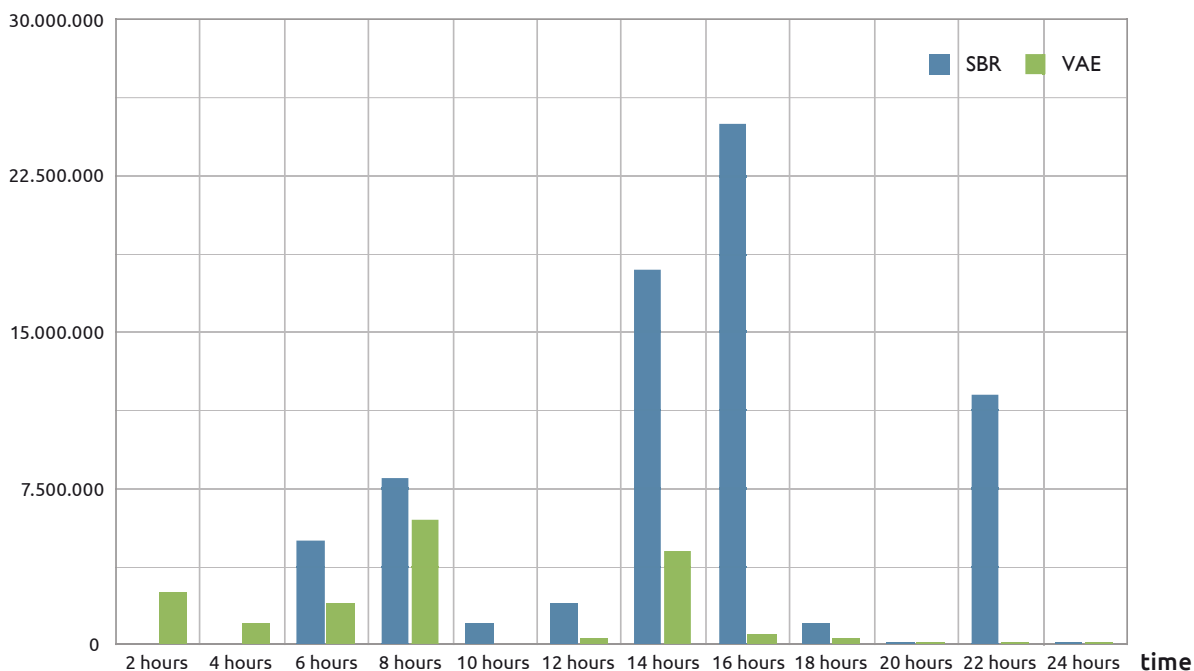
- **absence of odour:** using VAE ensures that the characteristic odour of new carpets - sometimes perceived as being unpleasant - now belongs to the past.
- **reduced flammability:** tests on films of carpet backing compounds with VAE and SBR showed the VAE films to be far less flammable than the SBR films. The backing compound based on SBR burnt completely and even released a black smoke in the process (as shown in the illustration on the right). Ceneva® backing is therefore ideal in commercial locations such as hotels, offices and aircraft where fire safety is a high priority.
- **lower emissions of volatile organic compounds:** volatile organic compounds (VOCs) are chemicals used to manufacture and maintain building materials, interior furnishing and cleaning and personal care products. These carbon based chemicals evaporate into the air, often in indoor

environments. Since their surface area is large, floor coverings have the potential to emit such VOCs to the environment. The German Textiles & Flooring Institute GmbH (TFI) tested both VAE and SBR carpet backing for emissions of VOCs. Following the rigorous standards of the GUT label, the emissions of VOCs released by carpets on VAE backing was shown to be much lower than when using an SBR backing (see chart below).

- **quality final product:** the quality of the carpet backing has become more consistent and is now more flexible allowing for easy fitting. Ceneva® backing also has excellent tuft bind and lamination qualities.



emissions of VOCs



A baby with blonde hair, wearing a yellow long-sleeved shirt and light blue pants, is sitting on a dark brown carpet. The baby is looking down at a small, silver toy train engine. To the right of the train, there is an open book with colorful illustrations of a bird and a flower. In the background, there are two framed pictures on a pink wall. The text "Ceneva® is the solution for those who are environmentally conscious" is overlaid on the image in white, with horizontal dashed lines above and below it.

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who are environmentally conscious