



On the Way to a Sustainable Bond

SABA's commitment to sustainability goes beyond business objectives — it is a fundamental part of their ethos. As one of the leaders in the field, SABA understands its responsibility to contribute to a better world.

An Evolving Paradigm

For decades, adhesives producers were required to create the strongest bond possible (between mattress layers) to ensure high durability of the product. And they successfully answered that demand. But in recent years - with a growing focus to transition to circular economy models - adhesives producers are faced with new requests, notably; 1) to reduce the environmental impact of their products, and 2) to still make bonds that are strong during the lifetime of a product (e.g. a mattress), but can be (easily) debonded at the end-of-life stage or do not hamper (advanced) chemical recycling processes.

While not everything can be addressed at once, SABA focuses on these areas to make bonding fit for the future.

Reducing the Environmental Impact of Mattress Adhesives

Recently, SABA launched its first bio-based water-based adhesive: "Sababond 3415." As nowadays products based on renewable raw materials can be key contributors to a resource-saving circular economy, this project represents a significant step forward. In addition to working with all typical materials found in mattresses, Sababond 3415 also specifically adheres to nonwoven and to PU foam, has a fast initial tack and facilitates recovery after roll packing. A great match for bonding pocket coils to foam.

Sababond 3415 incorporates Natural Latex, a ingredient that significantly reduces the environmental impact of mattress adhesives for their customers. In its current formulation it contains a minimum biobased content of 77%. This content is verified independently by a third party and the product is rewarded with a "DIN-Geprüft biobased 50-85%" quality label from TÜV Rheinland.

Addressing New Challenges for Mattress Recycling

Mattresses are increasingly recycled in Europe and recycling technologies are progressing to make ever better recyclates that can be used to make new products.

Over the past years, chemical recycling of PU foams started at industrial scale, progressively expanding to new countries. This triggers new demands to adhesives producers. Mattress dismantlers and extended producer responsibility schemes increasingly consider better ways to sort and separate materials. And that is where adhesives producers are asked to consider making products that keep the same strong bonding properties during the use-phase of the mattress but also allow for 'debonding' at the product dismantling stage to allow for optimal recycling of the materials contained in the mattress.

In response, SABA has taken a proactive stance by initiating a collaborative project that engages both their customers and suppliers. The goal is to develop the right technology and solution for debonding, while utilizing established application methods. This is work in progress and different demands from the supply chain (from producers to recyclers) still need aligning. Currently adhesives' producers direct customers still largely demand irreversible adhesives, resulting in foam tear when trying to separate the components.

Making Adhesives Ready for Advanced Chemical Recycling

The good news is that new solutions being developed - such as Sababond 3415 - do not hamper current chemical recycling processes. As stakeholders start investigating second generation chemical recycling for polyurethanes (split phase chemical recycling), more investigations will need to take place on: i) the best glueing solutions and application techniques for bonding different materials, ii) cost-efficient debonding or adhesives that can be handled by the said chemical recycling technologies.

SABA takes a proactive role in the industry, engaging with all stakeholders to discuss upcoming requirements and striving to establish a shared understanding. In particular, the company is active in several trade associations and working groups to discuss such issues with like-minded organisations.

ABOUT SABA ADHESIVES & SEALANTS

SABA is a producer of high-quality and technically advanced solutions with adhesives and sealants for the furniture, transport and construction industry. We connect our thorough expert knowledge about adhesion and sealing to smart cooperation with suppliers and customers worldwide. We create a strong and sustainable bond by helping our partners to strengthen their competitive position and reducing their environmental footprint.

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