



RePoliol®: More than a Decade of Production of Recycled Polyols

PROJECT DESCRIPTION

Production of RePoliol at Ikano Industry on a production scale began in 2013. After successful tests using RePoliol in the production of flexible PUR foam, full-scale production commenced and continues to this day. Initially, only standard foam was recycled, but now Ikano can recycle all types of foam, which reduces the amount of foam ending up in landfills.

RePoliol is successfully used to produce all types of flexible foams at Ikano; such as Standard Foam, HR and VE foam. The recipe for HyperSoft foam with the addition of RePoliol is in the production testing phase. Foams produced at Ikano using RePoliol meet IKEA requirements in terms of physical and mechanical parameters, which are identical to foam without recycled polyol. The amount of RePoliol used in production depends on the type of foam and ranges from 10-35%.

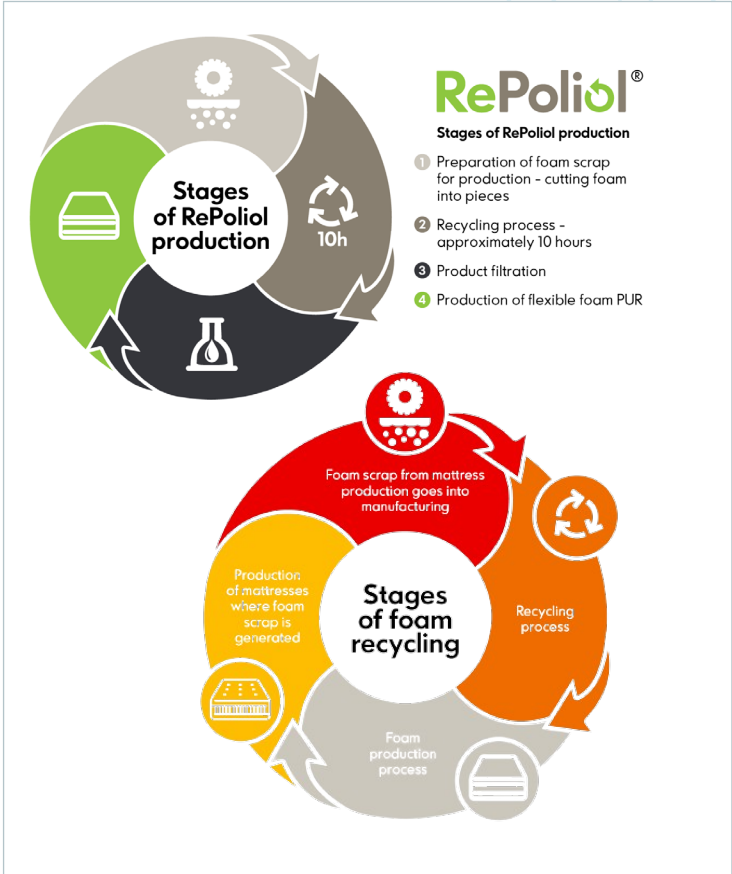
Ikano is continually working to increase the amount of RePoliol used in the production of mattress foam. The goal is to obtain foam with a 50% RePoliol content, suitable for the production of mattresses packed in the press and roll system. They are also working towards producing a foam made entirely of RePoliol, while at the same time conducting tests to increase the amount of foam that can be recycled in the production of RePoliol. The additional benefit in the production of foam using RePoliol is the carbon footprint reduction. In line with this, Ikano is also currently working on replacing petrochemical polyols in the production of RePoliol with more environmentally friendly Natural Oil Polyols (NOP's).

While working on further development of foam recycling and considering the benefits of using RePoliol, it was decided to build a recycling installation in Mexico, with the launch planned for the end of 2024. Next to this, Ikano is working on recycling post-consumer mattresses. The collaboration with RetourMatras on the development and optimization of the RePoliol production process from post-consumer mattresses was another important step in the development of the flexible PUR foam recycling method.

PROJECT IMPACT

Since the start of RePoliol production in 2013, Ikano Industry has recycled approximately 9,000 tons of foam. This foam did not go to landfill, but was reused in the production of flexible PUR foam. Ikano has thus reduced petrochemical polyol consumption by approximately 20,000 tons over the last 10 years.

The production of RePoliol at Ikano Industry is constantly growing, which is related to the development of production capabilities. In 2023, the company produced 3,000 tons of RePoliol, enabling of recycling 1,200 tons of flexible PUR foam.



ABOUT IKANO INDUSTRY

Our focus is on quality and sustainability in everything we do and we continue to develop a fully circular offer. Ikano Industry, formerly Dendro Poland, started in 1992 and since 2009 has been manufacturing the mattresses step by step - from the production of polyurethane foam through cutting out mattresses, sewing covers, and sending the finished product to customers. Since 2013, we have been improving our breakthrough technology, which involves recycling foam in the chemical process - both from production residues and from post-consumer mattresses, producing RePoliol® and using it in the production process of subsequent mattresses. Our goal is to give our products an endless life by recycle components from post consumers mattresses.

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