



FORMING A NEW NICHE

Developing a high-performance plasterboard forming belt for the gypsum industry took Trelleborg several years, but the effort paid off almost immediately.

TEXT CLAUDIA B. FLISI **PHOTO** TRELLEBORG





Trelleborg's manufacturing facility in Slovenia is beautifully located in Kranj and celebrates 101 years of business in 2021.

In 2011, Trelleborg's manufacturing facility in Slovenia faced a difficult situation. The company had a reputation for its Chevron conveyor belts used in industrial applications, but its main market was hit hard by the 2008 global recession. Management decided to develop new niche markets, offering products in sectors where there was a need for high-quality innovative solutions. The construction industry was one such market and forming belts for plasterboard, or wallboard, became a logical target. "We thought they could benefit from our extensive knowledge of the rubber conveyor belt business," explains Rok Jamscek, Sales Manager for conveyor belts at Trelleborg Industrial Solutions. At the time, the facility had 91 years of experience in rubber manufacturing and was familiar with wallboard forming belts as an application. However, it understood

that forming belts presented challenges that had dissuaded many competitors. "Plasterboard is made to strict industry specifications focused on avoiding defects," says Milan Petkovic, Head of Research and Development in Slovenia. "The belt must be perfect, and it must stand up to 24-hour production." The first belt that Trelleborg installed in 2014 is still running and achieving its original standards of plasterboard quality. In 2015, the first full year of sales, the facility elicited enthusiastic market feedback. Since then, Trelleborg has eightfold its sales of high performance forming belts to the United States, its main market, Canada, Europe, Central America, and Russia. Building on its technical knowledge and market success, the business then turned to the development of a wear-resistant forming

How is plasterboard or gypsum board formed?

Plasterboard (also called sheetrock, drywall, wallboard, or gypsum board) plays an important role in the construction industry. The plasterboard is made by crushing gypsum and then adding water and additives. This mixture is transported along a long conveyor, called a forming belt, between two layers of heavyweight paper. The paper is chemically bonded to the core and then cut to predetermined specifications and dried. Gypsum industry standards call for a belt with superb surface quality, uniform thickness across its entire width, precise splicing, straight tracking, and a low friction coefficient.

"The Wear-Resistant belt is twice as resistant to abrasion as our standard belt."

Rok Jamscek, Trelleborg



Below: Plasterboard is made by crushing gypsum and then adding water and additives. The mixture is transported along a long conveyor, called a forming belt.

belt for use in the production of glass mat wallboards. Glass mat wallboards are an alternative to standard plaster wallboard. The glass fiber in the liner makes them stronger and more moisture and fire-resistant than conventional wallboard, but this fiber is more abrasive than plaster and wears down forming belts. Between 2015 and 2017, R&D developed a unique rubber compound to handle the extra abrasion, using special raw materials to improve belt performance. The launch of the Sava High Performance Wear-Resistant (WR) Plasterboard forming belt was in 2019, and customers were delighted. The WR belt is "twice as resistant to abrasion as our standard belt, which itself is a leader in its field,"

Petkovic, points out. The effective lifetime of a forming belt depends not only on its material composition but also on its use and maintenance. However, on average, a WR belt lasts twice as long as a regular belt, Jamscek confirms. As the trend toward glass fiberboard is growing, production is increasing and the WR has become more important. The niche market born of necessity in 2011 is growing year-on-year in sales and customer satisfaction. In 2018, Petkovic recalls, a Canadian client described the Trelleborg product as "a supreme belt. No other producer can produce this level of quality." ■
For more information: rok.jamscek@trelleborg.com



Four advantages

There are four compelling reasons to switch to Trelleborg's solution:

- **Belt calibration.** "We added this step, something no one else does, because we knew that plasterboard is made to strict industry specifications and producers are focused on avoiding defects," says Petkovic. "Standards must be met, so the belt must be perfect."
- **Wax-free natural rubber.** Traditionally belts use wax to protect the rubber from the negative effects of temperature, light, and aging, but the wax accumulates on drums and pulleys, and the production line must stop periodically for cleaning. Trelleborg's rubber has a special chemical compound in lieu of wax, negating downtime.
- **Laser inspection.** In 2016, Trelleborg introduced a laser inspection system to examine the thickness of the plasterboard. Display of defects is in real time, saving the final client costs and aggravation.
- **Full-service package.** Trelleborg offers a full package including forming belt equipment, installation and splicing, as well as after-sales support. Trelleborg is the only maker of rubber forming belts to offer such a complete service in the European market.