



Wood-based panel producer improves product quality and operational performance with a unique Habasit pre-press belt

A European leader in wood-based panels for furniture continuously strives to balance high-volume production with uncompromising product quality across its international manufacturing network.

At one of its plants, the customer decided to evaluate an innovative pre-press belt to address persistent process challenges typical of MDF production. Aggressive resins and release agents used on the line had been causing belt delamination and occasional marking on the wooden mat surface. These issues not only affected panel quality, but also impacted process stability and increased maintenance requirements.

To overcome these challenges, a new-generation pre-press belt design was tested without a conventional top cover. This innovative approach eliminated the risk of delamination and delivered significant benefits, including improved product quality and greater production reliability.

Origin of the challenge

Before implementing the new Habasit belt, the customer faced recurring issues in the pre-press section. The previously installed competitor's TPU belt showed significant limitations under demanding operating conditions.

It lasted only around five months before requiring replacement due to:

- Surface degradation caused by aggressive chemical exposure.
- Marks on the wooden mat, negatively affecting board quality.
- Delamination of the top surface.
- Rupture of the belt joint.

These issues translated into measurable operational drawbacks:

- Reduced reliability in the pre-press section, affecting the entire forming process.
- High operating costs due to frequent belt replacement.
- Inconsistent panel quality.

Solution

To address these limitations, Habasit introduced a new pre-press belt designed specifically for high-performance wood-based panel production: **ENI-32A** – a new approach to the pre-press belt surface. A key element of the upgrade was the transition from a cross-linked polyurethane cover to a belt with an impregnated fabric surface.



Key features:

- Belt layers highly resistant to pMDI, eMDI, MUPE, and UF resin penetration.
- Improved mechanical durability, eliminating the risk of delamination and joint failure.
- Stable performance under heavy loads, including the high pressures used in MDF/HDF production.
- Optimized surface design, reducing abrasion of the deaeration belt.

From trial to transformation

The new pre-press belt was installed on March 26, 2023, initiating validation in real production under demanding MDF manufacturing conditions.

After installation, the belt remained in service beyond the lifetime previously achieved with the former solution, which had required replacement after only five months. The new belt demonstrated not only greater durability, but also the ability to stabilize the process and improve product consistency.

For more information about Habasit's products and how they can benefit your business, please visit:



Business impact

By optimizing a critical element of the pre-press section, the customer achieved clear operational and quality improvements:



Consistent panel quality

Elimination of defects caused by belt surface degradation.



Improved process stability

Reduced variability and fewer unplanned production interruptions.



Lower maintenance effort

Reduced deaeration belt replacement thanks to the lower coefficient of friction of the new pre-press belt surface.



Extended belt lifetime and reduced total cost of ownership

A significant increase in service life compared with the previous TPU belt with a cross-linked polyurethane cover.