

MAYR-MELNHOF HOLZ

Adhesives *are* a matter of trust

Smooth changeover inside a high-performance CLT plant

While the new CLT plant in Leoben was being put into operation, Mayr-Melnhof Holz switched to a newly developed one-component PU adhesive for load-bearing applications from BASF and its sales partner Türmerleim. All that production manager Martin Klingenbrunner and his team had to do was to connect the reusable containers filled with Elastan TLP to the plant.

& Günther Jauk

“We connected the new adhesive containers to the plant, produced the required test panels for Holzforschung Austria and then, after the successful acceptance test, we immediately started regular production,” Klingenbrunner says, describing the changeover process, and adds that only small adjustments had to be made in regular operation due to minor differences in color and viscosity. These were made in just a few hours.

“We want to get the most out of the adhesive, too.”

Martin Klingenbrunner, production manager at Mayr-Melnhof Holz

As already reported on in detail by the Holzkurier (see QR codes), Mayr-Melnhof Holz has implemented the most extensive investment project in the company's history at its headquarters in Leoben. In addition to a post-sorting and planing line for up to 700,000 m³ of lumber a year, including a fully automated high-bay warehouse with space for up to 28,000 m³, most of the €175 million were spent on a cross-laminated timber plant. The result is one of the world's largest and most automated CLT production sites with an annual capacity of 140,000 m³, which was built in just two years.

A foundation of trust

While the plant was being put into operation, Mayr-Melnhof started looking for a new adhesive supplier. “In Leoben, we started out with the same PU product as in Gaishorn. Given the extremely high performance of the new machines, we also wanted to get the most out of the adhesive. In

Türmerleim, we found a reliable partner with whom we can fully utilize the plant's capacity,” Klingenbrunner explains. Together with BASF, Türmerleim launched a large-scale development project in 2018, which resulted in the Elastan TLP adhesive line, which was approved in 2021. With this approval of a line of adhesives based on moisture-curing, one-component polyurethanes with different processing times for the gluing of load-bearing timber construction elements, BASF and Türmerleim met the requirements defined in the norm DIN EN 15425. For the two companies, this opened the door to the cross-laminated timber industry.

Not even three years later, Rainer Reiterer, Head of Technical Sales at Türmerleim, tells us about the successful acquisition of numerous big and small customers from the sector. “The fact that we have had this kind of success with our PU adhesive line in such a short time is, of course, mainly due to the product itself. Together



Türmerleim's Rainer Reiterer (left) and Martin Klingenbrunner, CLT production manager in Leoben, are happy about the successful collaboration

with our partner BASF, we have the trust of the industry, which opens many doors for us, such as the one to Mayr-Melnhof Holz, for example.”

Pressing time: only 17.5 minutes

Mayr-Melnhof Holz now uses the Elastan TLP adhesive for the gluing of both surfaces and finger joints. “For surface gluing, we currently use the ten-minute product, which allows us to fully utilize our capacity when it comes multi-layer panels. With the impressive factor of 1 to 1.75, the shortest possible pressing time is 17.5 minutes,” Klingenbrunner says, who is satisfied with the adhesive's performance. The indi-

vidual adhesives of the Elastan TLP line are approved for open times of five to 100 minutes.

In addition to the TLP line, Türmerleim also offers its CLT customers hot-melt and white glue products for the narrow-edge gluing during assembly as well as products, such as solvents or release agents. “We offer our customers a complete adhesive package. A short while ago, we delivered hot-melt granules for single-layer panels to Leoben,” Reiterer tells us.

Reusable containers

The PU adhesive is delivered in special, reusable 1,100 kg IBCs with funnel-shaped

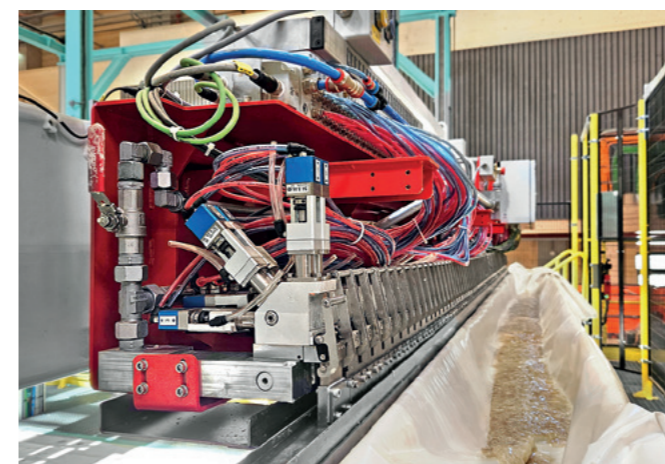
spouts. “This way, we kill several birds with one stone,” Reiterer emphasizes. Advantages include the easier handling with the forklift truck, the significantly reduced waste and the elimination of residual quantities inside the containers. “When you use fluid bags, there is always a small amount of adhesive left in the container. This is not the case with Türmerleim's IBC system, and that is in line with our sustainability strategy and good for the environment, too. Also, since the containers are transparent, we can see the fill level at any time,” Klingenbrunner says about the advantages of the reusable containers used in Leoben. //



Mayr-Melnhof Holz uses Türmerleim's PU adhesive for the gluing of both surfaces and narrow edges



The change of adhesive was smooth from the very first panel. There were no problems in production or with the end product



The Oest adhesive application system perfectly handles the new adhesive



Neatly lined up reusable IBC containers supply Mayr Melnhof Holz's CLT plant in Leoben with Türmerleim's Elastan TLP adhesive