



*Arcwood produced and assembled the CLT and glulam elements for Loodusmaja, Estonia's largest timber construction project. Both products are manufactured using TÜRMERLEIM adhesive.*

# Long-standing partnership based on trust

Approximately two decades have passed since the establishment of Estonian wood processing company Arcwood by Peetri Puit. During this time, the company has developed into one of the largest glulam and CLT producers in the Baltic region. Since the construction of a new production hall, Arcwood has been ordering its adhesives from TÜRMERLEIM. In addition to high product quality, the excellent technical support and joint development projects have strengthened the collaboration between the two companies.

TEXT: **Jakob Wassermann**

IMAGES: **Arcwood/Tõnu Tunnel (1), TÜRMERLEIM (2), Jakob Wassermann**

Arcwood has gradually expanded its range of products for structural timber engineering. Everything began with the production of solid structural timber (KVH), initially with used machinery in a small hall. In 2014, following the installation of a vacuum press, Arcwood became the first Baltic company to produce CLT. Two years later, a new hall was built for the production of glulam. Since 2020, when Arcwood expanded its production site by adding another building, CLT has been produced on a highly automated Minda line with an annual capacity of 40,000 m<sup>3</sup> in a two-shift operation.

“Our focus is on project business, where our comprehensive product portfolio allows us to supply all structural elements,” Peeter Peedomaa, managing director of Arcwood, emphasizes. Peedomaa himself, his wife, and their two children are all actively involved in the company. Thanks to the possibility of manufacturing curved glulam beams, Arcwood can build even architecturally demanding structures. Five CNC machines are available for joining. Arcwood also has its own design department and assembly teams. Through its involvement in local associations and its col-

laboration with universities in Tallinn, the company has made a significant contribution to the development of timber construction in Estonia. In addition to the domestic market, Arcwood also supplies customers in Scandinavia, Central Europe, and Asia.

#### Partners from the very beginning

Since the construction of the new buildings for glulam production, Arcwood has relied on adhesives from Türmerleim. When Türmerleim and BASF developed the Elastan TLP PU adhesive line, the first industrial application tests took place at Arcwood's site in Põlva. "We primarily process spruce but in some projects, pine is also used for the middle layer," Peedomaa tells us. The family-owned company sources its raw materials from Estonia and Scandinavia.

Since the official approval of the one-component PU adhesive line, it has been used in CLT production. Arcwood also uses the PU adhesive for bonding the finger joints of the lamellas and in solid structural timber production. Specifically, the company uses BASF's Elastan TLP adhesive line. "Depending on the requirements for production, we also offer faster or slower systems," Türmerleim service technician, Willi Baun, explains. "The various adhesive systems enable us to flexibly adjust waiting and pressing times, thereby maximizing the output of our line," Arcwood development manager, Allar Lind, adds. Permitted waiting times range from five to 100 minutes, and pressing times from eight to 170 minutes.

The adhesives are delivered in 1,000-kg fluid bags. Alternatively, Türmerleim offers delivery in special reusable containers.

Thanks to the funnel-shaped spouts, virtually no adhesive residue is left in these IBC containers.

#### One software for everything

With the Platform for Assistant Systems and Machine Data (PAM), Türmerleim has succeeded in pooling all production and quality data into a single, central software solution. "The quality assistant in PAM makes it possible to carry out the entire in-house production control within one system. Our climate app automatically documents the production climate," Baun says. For this purpose, a total of five climate sensors, measuring temperature and humidity, are installed in the production hall.

Lind confirms the great benefits in daily use: "Using PAM saves us a lot of time in production control. All data are saved automatically. Manually created Excel spreadsheets are now a thing of the past. Also, I can access all relevant information at any time via the web-based system." In the production of the up to 36-m-long glulam beams, where Arcwood relies on an MUF adhesive, the Glue Assistant is also used. This tool automatically records and documents all process parameters and is also connected to PAM. "Türmerleim's software solution is a tremendous help to us - but it is only one aspect. Their outstanding customer service is another crucial factor in our successful collaboration," Lind emphasizes.

"Our philosophy is not just to be an adhesive supplier, but to provide our customers with comprehensive support in all technical matters. Together, we want to implement the best possible production process," Baun says in conclusion.



Five climate sensors ensure continuous monitoring of temperature and humidity in the production hall.



The PU adhesive is delivered in 1,000-kg fluid bags.



Successful collaboration: Arcwood CEO Peeter Peedomaa (center) with Türmerleim employees Kalev Kikas and Willi Baun (from left)



In the production of CLT elements, Arcwood relies on Türmerleim's Elastan TLP adhesive line.