

**APRIL
2023**

PRESS RELEASE

ETA – LIGNOLOC® GOES EUROPE

**Wooden nail achieved
European Technical
Assessment**





The European Technical Assessment (ETA) was granted to the LIGNOLOC® wooden nail for structural timber construction. The collated nail made of wood from RAIMUND BECK KG can now be used in load-bearing timber constructions throughout the EU. The nails are used for timber-to-timber or panel-to-timber connections.

The approval applies to the nails without a head and enables the planning, design, and execution of load-bearing connections in timber frame construction. The provisions made are based on an assumed intended working life of the LIGNOLOC® nails of 50 years.

The nails are used in load bearing timber structures with softwood members of for example solid timber, glued laminated timber, cross laminated timber, LVL and similar glued members or wood-based structural members. Planks and panels made of solid timber, wood-based materials or gypsum fiber can be attached to wood building materials using LIGNOLOC® wooden nails. In addition, connections can be made with LIGNOLOC® to produce bracing and load-bearing wall diaphragms.

ETA 2023 – German Technical Approval 2020

At fastening pioneer BECK, the European Technical Assessment was eagerly awaited. As early as 2020, the German Institute for Construction Engineering (DIBt) issued the German “National technical approval / general construction technique permit” for “Load-bearing timber connections using LIGNOLOC® wooden nails”.

“This is a massive step forward for us and for our pursuit to establish LIGNOLOC® as a standard practice in the European building sector and to further advance the ecological turnaround in construction. With the ETA, the static verification can be carried out according to Eurocode 5“, explains Christian Beck, General Manager & CEO, enthusiastically and gives a

little outlook: „We also expect the approval for the LIGNOLOC® wooden nails with head for facade applications this year.“

LIGNOLOC® – modern wooden nail for sustainable timber construction

LIGNOLOC® is the first collated wooden nail for future-oriented use in industrial production and in ecological wood processing. From production to recycling, LIGNOLOC® wooden nails have outstanding eco-friendly properties. For this, BECK was awarded the Upper Austrian sustainability prize FERONIA in March 2023.

The wooden nails are made from Central European beech wood. By using the FASCO® LIGNOLOC® pneumatic nailer and due to their mechanical properties, the nails can be driven into wood and wooden materials without pre-drilling and are permanently connected to the receiving base wood.

Advantages of lignin adhesion in timber construction

The special design of the LIGNOLOC® nail point and the large amount of heat generated by friction when the nail is driven in at a high speed cause the lignin of the wooden nail to bond with the surrounding wood to form a substance-to-substance bond.

The LIGNOLOC® wooden nails convince with many key benefits. They do not act as thermal bridges and avoid unsightly wood discoloration or traces of corrosion. They also cause less tool wear when processing nailed wooden components subsequently.

LIGNOLOC® – from manual pneumatic nailers to automation

The LIGNOLOC® F44 and F60 pneumatic nailers provide the necessary power to drive the wooden nails directly into wood or wooden materials without pre-drilling.

The F60 system offers even larger dimensions, better pull-out and shear values and more possibilities for ecological timber construction.

Manual pneumatic nailer F44AC CN15-PS60A LIGNOLOC® FS

ETA for wooden nails with a diameter of 3,7 mm and length of 50 / 55 / 60 mm

Manual pneumatic nailer F60 CN15-PS90-H LIGNOLOC®

ETA for wooden nails with a diameter of 4,7 + 5,3 mm and length of 65 / 75 / 90 mm

With the two LIGNOLOC® HEADs from the FASCO® tool line of BECK, the wooden nails can now also be processed in stationary systems.

HEAD CN15-PS60 LIGNOLOC®

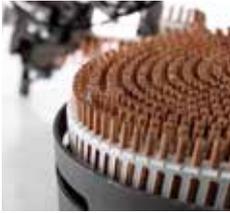
ETA for LIGNOLOC® wood nails of 3,7 mm x 50 – 60 mm

HEAD CN15-PS90 LIGNOLOC®

ETA for LIGNOLOC® wood nails of 4,7 + 5,3 mm x 65 – 90 mm

This year, BECK will be presenting its innovative wooden nail system, including an automation solution, at the BAU and LIGNA trade fairs. Project partner KEHRATEC is also on board. The two companies are working on the realization of a robot-assisted system for the fully or partially automated implementation of timber construction projects, particularly by pre-assembling completely glue-free and metal-free wall elements. Small and medium-sized timber construction companies and carpenters throughout Europe should be able to manufacture metal- and glue-free mass timber wall elements themselves.

All information about BECK and LIGNOLOC® at: www.beck-fastening.com



Photos 1 & 2:

A FASCO® nailing head with collated LIGNOLOC® wooden nails for use in stationary systems. © BECK



Photos 3 & 4:

The manual pneumatic coil nailer F44AC CN15-PS60A LIGNOLOC® FS from FASCO®, the tool brand from BECK. © BECK



Photos 5 & 6:

The manual pneumatic coil nailer F60 CN15-PS90-H LIGNOLOC® from FASCO®, the tool brand from BECK. © BECK



Photos 7, 8, 9 & 10:

LIGNOLOC® the wooden nail without head. © BECK



Photo 11:

The ETA certificate can be downloaded from the manufacturer's website. (ETA / European Technical Assessment)



The BECK Group is one of the world's leading premium manufacturers of fastening systems and innovative fastening solutions. Founded in 1904, the family-owned company, now in its fourth generation, is globally active with customers in more than 50 countries. – www.beck-fastening.com

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