

MORE FROM WOOD.

E EGGER

Processing Instructions

**Eurolight Lightweight
and high strength –
the perfect combination.**



The technical bit ...

We've put together a whole host of useful processing advice on everything from cutting and edging to inserting blocks and bonding dowels.



Simply scan this QR Code to view our Eurolight processing video, which includes additional help and advice.

www.egger.com/qr-video-eurolight-processing

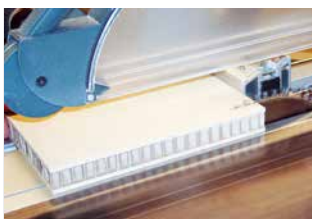


Fabricating

In addition to the key information shown, more detailed processing information, as well as technical data sheets can be found on our website www.egger.com/eurolight



Our state-of-the-art Eurolight production line



Cutting

If the Eurolight boards are cut using horizontal cutting machines that use a pressure bar and slider with pressure grippers, the pressure applied by the grippers must either be decreased or shims inserted close to the grippers to ensure the pressure is distributed more evenly. The maximum compressive rigidity of Eurolight is 0.15 N/mm^2 (1.5 kg/cm^2). When cutting Eurolight, chips occasionally fall into the honeycomb core. These should be removed before edging the boards.



Drilling

Eurolight can be drilled in exactly the same way as other wood based panels and even extends the tooling life due to the cardboard honeycomb core.



Milling

By milling back the upper and lower surface layers, chipboard or MDF frames can be inserted around the edges of the Eurolight for projects which require extreme load bearing or better screw holding properties.



Edging

From our experience, as Eurolight boards have 8 mm high density surface layers they can be edged directly. EGGER 2 mm ABS Edging is recommended and normal edge banding machines can be used.

If, however, the edging results are unsatisfactory, the following 2 steps (recommended by HOMAG) can improve the result when edging using continuous flow systems:

- Reduce contact pressure of trimming unit from 2 kg/cm² to 1.5 kg/cm².
- Reduce the amount of overhanging edging along the length of the board as much as possible.

Edging can also be applied manually by using PVAC adhesive and then using masking tape to keep the edging in position until the adhesive cures. Edges can then be trimmed and finished by hand.

Veneering

Eurolight Raw is ideal for laminating and veneering.

We can offer you a wide selection of 300 laminates within the EGGER Decorative collection 2017–2019.

The figures below apply to both the 38 mm and 50 mm thick Eurolight boards.

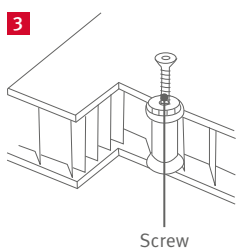
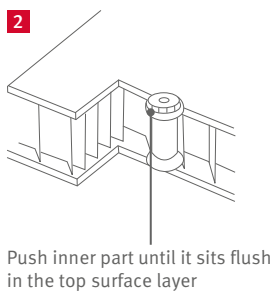
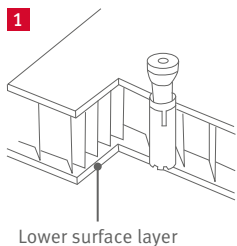
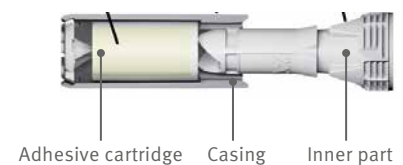
	Frameless	Framed
Veneering	Max. press temperature: 90°C Max. press duration: 3 minutes Max. specified press pressure: 1.5 kg/cm ²	Max. press temperature: 80°C Max. press duration: 3 minutes Max. specified press pressure: 3-5 kg/cm ²
Laminating	Max. press temperature: 70°C Max. press duration: 3 minutes Max. specified press pressure: 1.5 kg/cm ²	Max. press temperature: 70°C Max. press duration: 3 minutes Max. specified press pressure: 3-5 kg/cm ²

Inserting bonding dowels

Bonding dowels offer an alternative to inserting frames and allow you to use exactly the same fittings as you use today. Whilst frames can only be inserted around the edges, bonding dowels can be inserted anywhere in the surface of the board.

Häfele – Aerofix 100

This adhesive insert connects both surface layers by means of the integrated adhesive. The Aerofix 100 is a bonding dowel containing a glue-capsule, which breaks open and evenly distributes glue on the upper and lower inner layers of lightweight panels. They are easy to use and can be processed either manually or by automatic machines. The Aerofix 100 adhesive insert bridges the gap (mechanically and chemically) between the two 8 mm MFC layers of the lightweight panel.



Instructions

- 1 Drill 10 mm diameter hole into top surface in required position. Use a drilling depth that ensures that the top surface and core are removed as far as the lower surface layer.
- 2 Push Aerofix 100 bonding dowel into drill hole until it mechanically engages. This ensures that screws and bolts can be screwed into the adhesive insert immediately after installation. The bonding dowel should not be subjected to the full mechanical load immediately after installation.
- 3 The chemical adhesion process takes place when the insert is pressed in. The single-component PUR adhesive distributes itself between the upper and lower layers and is fully cured within 16 hours. Once the adhesive is cured the insert can be subjected to the maximum load.

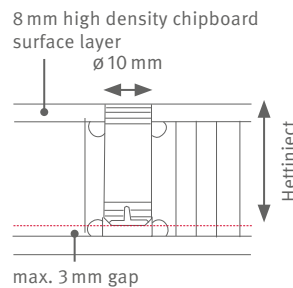
Fixings

Aerofix	
For 38 mm boards	
For 50 mm boards	

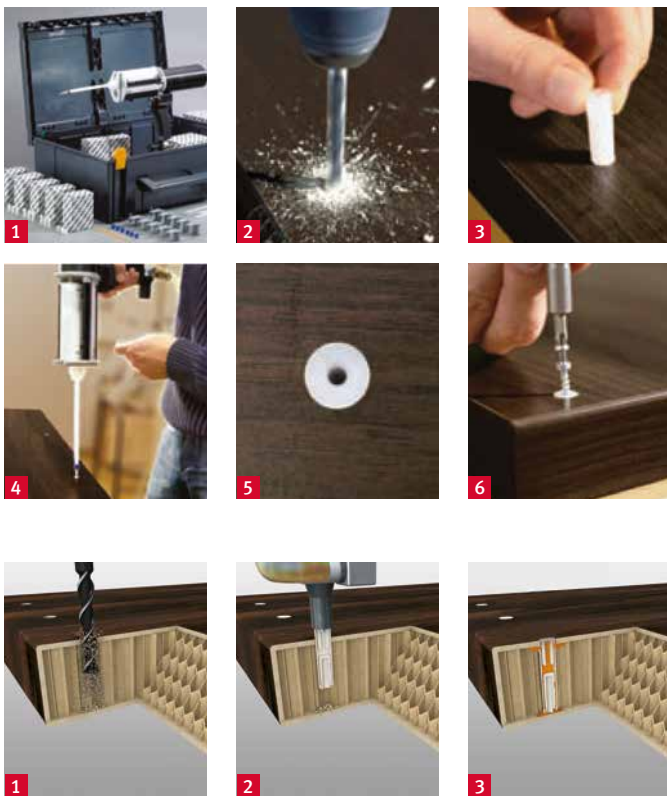
Hettich – Hettinject

With Hettinject bonding dowels, the glue is inserted manually and reaches the upper and lower surface layers via flow channels. This produces a highly stable structure which connects the surface layers, resulting in outstanding screw pull out results of between 750 N – 1250 N, up to twice as good as conventional fittings used in chipboard.

In terms of gluing, a variety of glue types can be used and the cycle times are short, as little glue is required. Glue can be measured individually and changed per dowel depending on the application (4 g of glue per dowel is recommended, but 9 g will result in the highest possible pull out strength). The curing time can also be selected individually, depending on the glue used.



Always ensure that there is a 1 – 2 mm space below the dowel so that the glue can bond to the lower surface layer (maximum 3 mm gap).



Manual Processing – Instructions

- 1 Hettinject test cases can be ordered from Hettich.
- 2 Drill a hole into the upper surface layer of the Eurolight board.
- 3 Insert the bonding dowel.
- 4 Glue is injected with a compressed air gun. The tip seals the dowel from above and ensures a clear screw slot.
- 5 The glue bonds the dowel to both surface layers across a large area.
- 6 Standard fittings can be mounted when the glue has cured.

Fully Automatic Processing – Instructions

- 1 Drill a hole into the Eurolight board, chips can remain in the board.
- 2 Fit the bonding dowel and glue the dowel simultaneously.
- 3 The glue bonds the dowel to both surface layers.

Fixings

Hettinject – For use with 4 mm diameter screws

Hettinject 27 (for 38 mm boards)

Hettinject 41 (for 50 mm boards)



Hettinject - For use with 6.3 mm diameter screws

Hettinject 41 (for 50 mm boards)



To find out more visit
www.hettich.com or
www.hafele.com

Inserting frames & blocks

Inserting frames and blocks along the edges of the board provides further **benefits**. These include additional screw holding properties and even better bending strength results, which opens up new application possibilities.



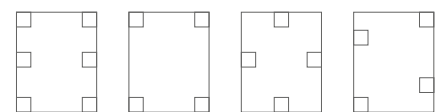
Eurolight Raw with 38 mm chipboard frame

Depending on the application, wooden blocks or 2 sided or 4 sided frames can be inserted.

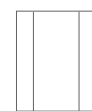
We recommend that 1.5 mm of each 8 mm surface layer is milled out for 38 mm Eurolight boards and 2 mm is milled out for 50 mm Eurolight boards (using standard milling machines) in order to remove the honeycomb core and any residual glue from the surface layers. This provides a smooth clean surface for gluing the frame in place and also ensures that the frame fits securely against the recess.

The use of standard PVAc glue is recommended. For added **flexibility**, frames and blocks can also be inserted after the boards have been cut to size. Suitable materials are wood based materials such as chipboard and MDF, or knot free, dried solid wood.

Wooden block options



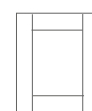
Framing options



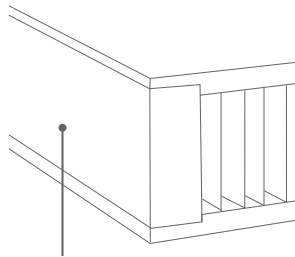
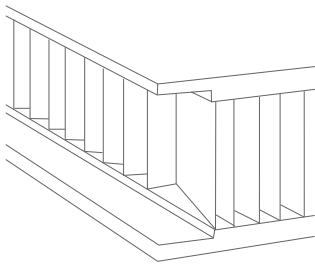
2 sided longitudinal frames



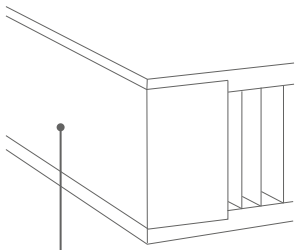
2 sided latitudinal frames



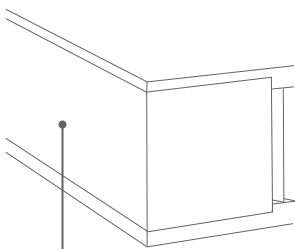
4 sided frames



10 mm frames



38 mm frames



65 mm frames

Different sized frames provide a variety of different solutions:

10 mm frames can be inserted to provide a base upon which to apply edge banding material which is thinner than 2 mm, e.g. Laminate edging or 0.8 mm ABS edging (2 mm ABS edging for example does not require a frame, see page 41 for details).

- With both 38 mm & 50 mm Eurolight boards insert 10 mm frame vertically.

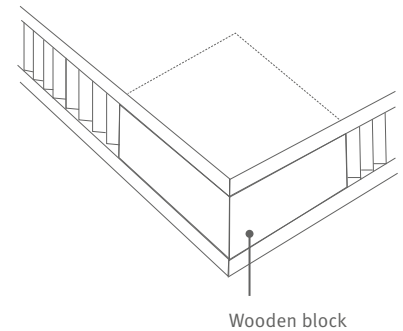
38 mm frames are perfect for postforming, inserting grooves and attaching load bearing fittings.

- For 38 mm Eurolight boards, insert a 25 mm × 38 mm frame horizontally.
- For 50 mm Eurolight boards insert a 38 mm × 38 mm frame horizontally.

65 mm frames ensure that every possible type of fitting, including door handles and hinges can be used.

- For 38 mm Eurolight boards, insert a 25 mm × 65 mm frame horizontally.
- For 50 mm Eurolight boards insert a 38 mm × 65 mm frame horizontally.

Wooden blocks can be strategically placed around the edges of the board to provide **additional stability** for specific fittings such as table legs. They can be inserted quickly and with ease on site using the same method as inserting frames.



Wooden block



EGGER can also supply Eurolight boards with chipboard frames already inserted (either framed, two sided or four sided). Please contact your EGGER account manager for minimum order quantities, lead times and prices.

Technical data

General tolerances

	Standards used	Unit	Board thickness	
			38mm	50mm
Thickness	EN 324	mm	± 0.3	
Length and width	EN 324	mm	± 5.0	
Curvature	EN 14322	mm/m	≤ 2.0	
Squareness	EN 324	mm/m	≤ 2.0	
Edge straightness	EN 324	mm/m	± 1.5	
Internal bond	EN 319	N/cm ²	> 10	
Screw withdrawal resistance	EN 320	N	> 570	
Edge nicks	EN 14323	mm	≤ 10	
Limit deviation – density to mean value	EN 323	%	± 10	
Formaldehyde content	EN 120	mg/100 g	E1	
Temperature resistance		°C	≤ 80°C	
Density		kg/m ³	330	265
Sound insulation index (R ^w)		dB	28	26.5
Compression strength		kg/cm ²	1.5	
Fire class	EN 13501-1		D-s1, d0	

Bending strength

- Tested internally in partnership with a local university in accordance with deflection standards DIN 68874-1
- Test load 150 kg/m²
- Relevant for Eurolight with or without ABS edging and Eurolight with a 10 mm frame.

Spanning distance	Thickness	Unloaded	Deflection after:			
			5 days	7 days	14 days	28 days
1000 mm	38 mm	0.04 mm	1.88 mm	2.28 mm	2.45 mm	4.00 mm
1000 mm	50 mm	0.16 mm	1.11 mm	1.35 mm	1.44 mm	3.00 mm

Weight

Thickness	Single board	Pack weight
38 mm	72.7 kg	0.93 tonnes (12 boards per pack)
50 mm	73.9 kg	0.72 tonnes (9 boards per pack)