

Processing instructions

EGGER Compact Laminates



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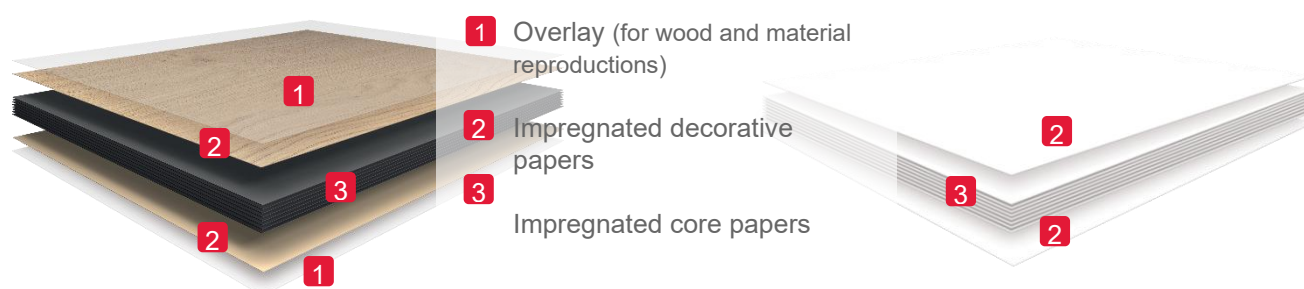
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Product description

EGGER Compact Laminates are compact laminates according to EN 438. They have a multi-layer structure and consist of an impregnated decorative paper as a surface layer and a fibrous and with curable resins impregnated core layer. The different layers are pressed together under high pressure and at high temperature. The manufacturing process corresponds with the criteria for HPL production.

For print decors, the Compact Laminate is provided with an additional overlay. The overlay layer is used to improve abrasion resistance and to protect the printed decor.



Due to the similarity in construction and manufacture, Compact Laminates and Laminates are combined in the EN 438 standard. Depending on the decor, core type and fire behaviour, EN 438 defines different material types, which are available from EGGER in the following product variants:

Product name	recipe	Sub-type number	EN 438 – Type
Compact Laminates Black Core	960	CL01 (black)	CGS – Compact General-purpose Standard
	965	CL01 (black)	ACS – Pearlescent laminate Compact Standard grade
Compact Laminates Flammex Flame Retardant	961	CL01 (black)	CGF – Compact General-purpose Flame-retardant
	966	CL01 (black)	ACF – Pearlescent laminate Compact Flame Retardant
Compact Laminates Coloured Core	962	CL02 (white)	BCS – Coloured core laminate Compact Standard grade
		CL04 (light grey)	
		CL05 (dark grey)	
	963	CL02 (white)	ACS – Pearlescent laminate Compact Standard grade
		CL04 (light grey)	
		CL05 (dark grey)	

Environment and Health

Please always use personal protective equipment (PPE) when handling and processing Compact Laminates. The following environmental and health information relates to machining and processing Compact Laminates.

Emissions

Processing and use outside the technical properties and standard classification of the Compact Laminates may increase emissions and thereby lead to health risks. Please observe the marked emission class for the product.

Resins

For the production of EGGER Compact Laminates, we only use polymerised resins which do not exhibit any hazardous properties after curing the product and are harmless for the intended use of the product. In particular, free melamine is not contained in Compact Laminates in a concentration that would trigger additional information obligations, for example under Regulation (EC) No. 1907/2006 (REACH). Furthermore, Compact Laminates naturally comply with the existing migration thresholds according to Regulation (EU) No. 10/2011 on plastic materials and articles intended to come into contact with food.

Health risks associated with dust generation

Dust may be generated during machining and processing. There is a risk of skin and respiratory tract sensitisation. Depending on the processing method and particle size, particularly when dust is inhaled, further health risks may arise. The generation of dust must be taken into account when assessing risks in the workplace.

In particular, during machining processes involving the removal of material, an effective extraction system must be used in accordance with applicable health and safety regulations. If no adequate extraction system is available, suitable respiratory protection must be worn.

Fire and explosion hazard

Dust generated during processing and handling may pose a fire and explosion hazard. The relevant safety and fire safety regulations must be observed.

Recycling / Disposal

Due to their high calorific value, Compact Laminates are suitable for thermal/energy recovery in appropriate incineration plants. Country-specific laws and regulations on disposal must always be observed.

Further information on the environment and health can be found in [the Environmental and Health Data Sheet \(EHD\) – Compact Laminates](#).

Handling of Compact Laminates

The following section describes the storage, conditioning and handling of Compact Laminates. Improper handling can lead to safety relevant damage. This may result in loss of functionality and health risks. It is therefore essential to follow the manufacturer's instructions for use.

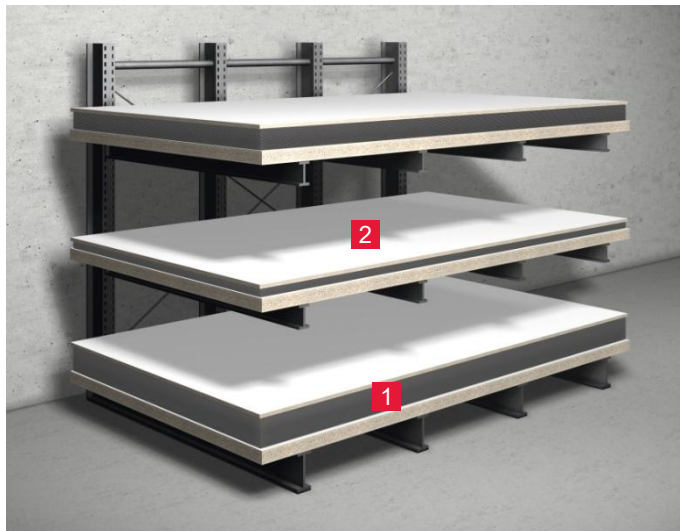
Storage and conditioning

Compact Laminates react to changes in ambient conditions with dimensional movement. Therefore, normal climatic conditions should be present in the rooms.

Compact Laminates are subject to dimensional changes when exposed to changes in climate. Therefore, storage and processing conditions should, as closely as possible, correspond to the climate at the subsequent place of use. Prior to installation, Compact Laminate elements should be conditioned for an adequate period at the installation location under the conditions of their future use. The storage recommendations must also be observed on building sites.

If the original packaging is removed, Compact Laminates must be stored on full-surface, horizontal, flat and stable protective boards. Direct contact with the floor and/or direct sunlight must be avoided. A decorative faced protective board (not rawboard) of at least the same format must be used to cover the top and bottom board.

– see Figure 1.



- 1** Compact Laminate stack
- 2** Decorative faced protective board

Figure 1: horizontal storage of Compact Laminates

If horizontal storage is not possible, the Compact Laminates must be stored at an angle of approx. 80° against a full-surface support with counter-support. A decorative faced protective board of at least the same size is also required for this storage method – see Figure 2.

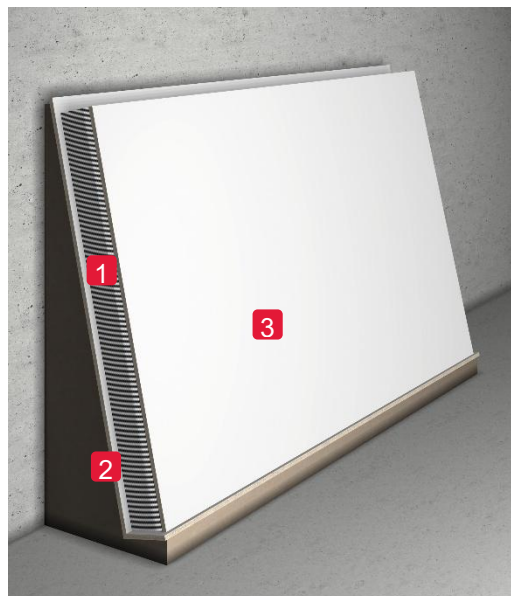


Figure 2: Correct storage of Compact Laminates



Figure 3: Incorrect storage of Compact Laminates

- 1 Compact Laminate stack
- 2 Counter-support with support at 80°
- 3 Decorative faced protective board

Handling

After removing the packaging and before installation, Compact Laminates must be checked for visible damage. Due to their relatively high weight, particular care is required when transporting and handling Compact Laminates. As a general rule, all persons transporting and handling Compact Laminates should wear personal protective equipment (PPE) such as gloves, safety footwear and suitable work wear. The panels must be lifted. Avoid sliding the decorative sides against one another or dragged over one another – see figure 4.

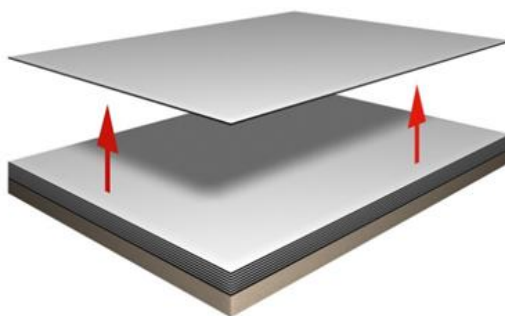


Figure 4: Correct method for lifting Compact Laminates

Machining and processing of Compact Laminates

Due to their high density and the high cutting forces that arise, the processing of Compact Laminates leads to shorter tool life compared to other wood-based materials. Sharp blades should be used to ensure optimal shredding and to avoid odour generation. Mainly carbide tools are used. Diamond-tipped tools are recommended for processing large quantities and when used in automated processing centres. Ensure that the tool blades are maintained in good condition to obtain satisfactory results. To ensure economical fabrication, especially prior to processing a large production batch or implementing challenging projects, it is advisable to consult manufacturers on the most appropriate tool selection.

Formatting and drilling

For cutting Compact Laminates to size, the use of panel saws or format circular saws is recommended. To achieve a good cutting result, the ratio of the number of teeth (Z), cutting speed (vc) and feed rate (vf) should be taken into account. For finishing on the construction site, plunge saws and a suitable guide rail can be used.

PLEASE NOTE:

- Visible side (decorative side) facing upwards
- Pay attention to the correct saw blade projection
- Adjust the speed and number of teeth to the feed rate
- The use of a scoring circular saw blade is recommended for clean cuts on the bottom of the board

Depending on the saw blade overhang, the entry and exit angles change, and with them the quality of the cut edge. If the upper cut edge becomes rough, the saw blade must be set higher. If the cut on the underside is rough, the saw blade must be set lower. The optimum height setting must therefore be determined.

Diamond-tipped tools are recommended for processing Compact Laminates. Carbide-tipped tools are suitable to a limited extent. Tools with segmented blades should be avoided where possible, as the overcut in the overlap zone usually remains visible. Due to the high cutting pressure, a secure workpiece and tool control is particularly important. There are a variety of options for profiling the edges. Any remaining milling marks can be removed by sanding. A uniform colour of the edge can be achieved by applying a silicone-free oil. To prevent injuries, sharp corners and edges should be rounded. For treating EGGER Compact Laminates with silicone-free oils, suitable options include, for example:

- Innoplast Protector from Innotec
- standard linseed oil.

Drill bits designed for plastic are best suited for drilling Compact Laminates. The tool manufacturer's specifications must be observed. Twist drill bits for metal or wood can also be used, but in this case, work must be carried out at lower speeds and with a slower feed rate.



Figure 5: Minimum distances between drill holes and the edge of the board

When drilling through-holes, the Compact Laminates should rest on a solid surface that can be drilled into. Adequate removal of drill chips must be ensured. Before the drill bit breaks through, the feed rate should be reduced to avoid break-outs on the exit side. For drill holes that do not go through, known as blind holes, at least 1.5 mm of the board thickness must be kept. For holes drilled parallel to the board's surface, a residual thickness of 3 mm must be maintained on both the top and bottom surfaces of the board – see Figure 5.

The selection of cutting, milling and drilling tools should always be made in consultation with the tool manufacturers. The tool recommendations for EGGER Compact Laminates, which were published in consultation with the tool manufacturers Leitz GmbH & Co. KG and Leuco AG, can also serve as a guide.

>> Further information on the tool recommendations can be found in the download section at www.egger.com/compactlaminate

Processing

Despite the good dimensional stability of compact boards, changes in climate can cause dimensional changes. The orientation of the fibres in the core layers gives the Compact Laminate a production or running direction – see Figure 6.

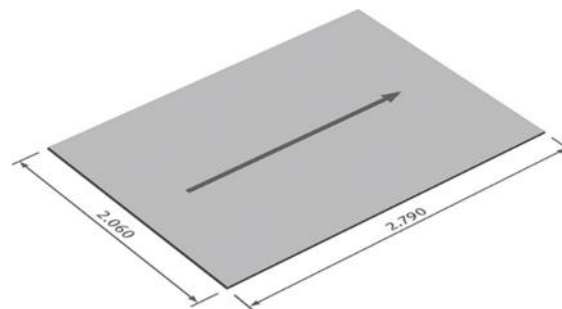


Figure 6: Production or running direction of the Compact Laminate

The dimensional changes are approximately half as large in the longitudinal direction as in the transverse direction. These dimensional changes must be taken into account from the outset during processing and construction. As a general rule, an expansion allowance of 2.0 mm/m should be taken into account. Differences in climatic conditions on either side of Compact Laminate elements can lead to warping. For this reason, wall cladding using compact boards must always be installed with adequate rear ventilation to allow for temperature and humidity equalisation or acclimatisation.

With Compact Laminates that are decorative on both sides, the production direction can often only be identified from the product dimensions. Wood-effect or direction-specific printed decors form an exception. When processing cut-to-size panels, care must be taken to ensure that panels with the same production direction are always installed together. Due to the risk of confusion with cut-to-size panels, the running direction should be marked on panel offcuts.

PLEASE NOTE:

- Take into account an expansion gap of 2.0 mm/m – Compact Laminates must always be installed without constraints
- Ensure adequate rear ventilation – compact panels must be able to achieve equilibrium moisture content on both the front and rear sides
- When installing cut-to-size pieces, ensure they are all in the same production direction

Cut-outs

Cut-outs and recesses, for example for switches, fan grilles or access points, must always be rounded off, as sharp-edged corners can lead to cracking – see Figures 7 and 8. Inside corners should be finished with an internal radius of at least 5 mm. All edges must be smooth and free from cracks and notches. Grooves and rebates also have to be rounded to prevent notch cracks. Cut-outs can be made directly using a router or pre-drilled with an appropriate radius and then sawn out from drill hole to drill hole. Sufficient expansion gaps must be allowed for integrated components.

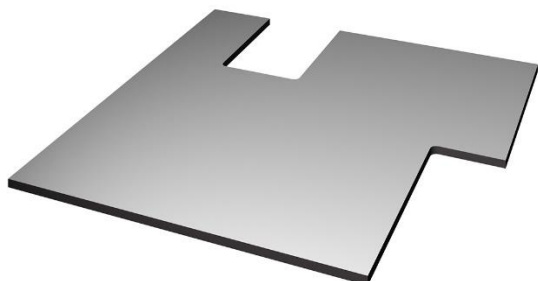


Figure 7: Corners with a radius of 5 mm

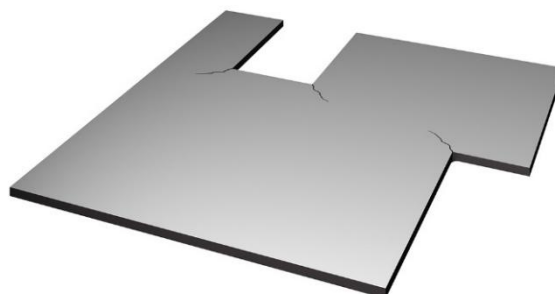


Figure 8: Corners with a smaller radius

Corner joints

Higher-load-bearing joints between Compact Laminates are achieved with a combination of gluing and fasteners, form springs (e.g. made from Compact Laminates) or grooves. Please note that Compact Laminates must only be joined together with the same production direction. Below are some options for stable joints in compact boards – see Figures 9 to 14.



Figure 9: Grooved



Figure 10: Grooved / rebated



Figure 11: Tongue and groove

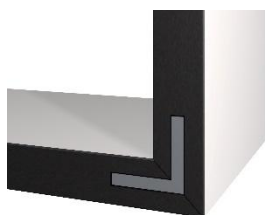


Figure 12: Angle spring

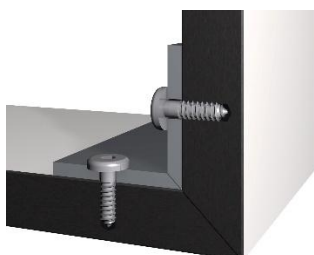


Figure 13: Metal profile, screw-fixed

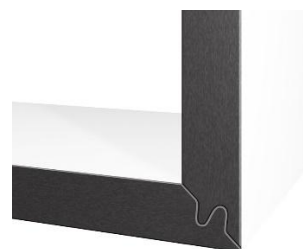


Figure 14: Profiled connections

Bonding

When bonding two Compact Laminates together, care must be taken to ensure that dimensional changes are not impeded. To avoid stress, only sufficiently conditioned Compact Laminates may be used, and these must be bonded together with the grain running in the same direction. Before bonding, the boards must be cleaned of dust, grease and dirt and, if necessary, pre-treated. It is recommended that you carry out your own tests. It is essential to follow the processing instructions provided by the adhesive manufacturer. Depending on the type of application, the following guidelines must be observed when bonding:

Bonding in furniture construction

Doubling and butt joint bonding

Visually thicker panels can be produced by doubling or upstands. When doubling, corresponding Compact Laminate strips are glued to the edge area – see Figure 15.

Bonding of butt joints is used as additional support to spring guides / lamellas. Care must be taken here to ensure that the Compact Laminates sections have the running direction. A suitable adhesive for this application is, for example, the stress-compensating 1K adhesive Ottocoll M500 from Otto Chemie.

Adhesive recommendations

OTTO CHEMIE

Ottocoll M500
Ottocoll M560

INNOTEC

Adheseal Project
Powerbond XS 330 15

JOWAT

Jowat 690.00

SIKA

SikaTack* Panel



Figure 15: Doubling

Upstand / mitre joint

For thicknesses up to 100 mm, or where the decor has to be visible at the edge for aesthetic reasons, the upstand is a possible solution – see Figure 16. First, both parts to be joined are mitred at 45°. The workpiece is then placed face down on a flat surface so that the tips of the mitres touch. Adhesive tape is then applied to this butt joint.

Care must also be taken to ensure that the parts run in the same direction. Both workpieces must then be turned over with due care. The adhesive is then applied – see Figure 17 – and the shorter workpiece or the upstand is flipped up – see Figure 18. Until the adhesive has set, the upstand or the mitre joint must be held in the correct position with adhesive tape. Ottocoll P 85, for example, can be used as a suitable adhesive.

Adhesive recommendations

OTTO CHEMIE

Ottocoll P85
Ottocoll P86 16 17 18

WÜRTH

PUR Rapid

INNOTEC

Repaplast Repair
Timber Fix 30



Figure 16: Upstand of a Compact Laminate

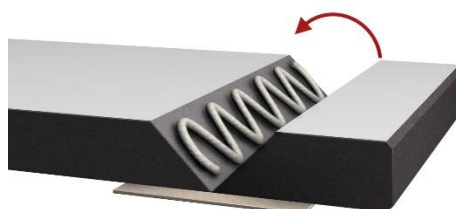


Figure 17: Apply adhesive to the mitre and fold together



Figure 18: Fold up the upstand and secure it with adhesive tape

Bonding in interior design

When bonding Compact Laminates for wall cladding, a permanently elastic adhesive system specifically developed for this purpose must be used. The Compact Laminates can be bonded as wall cladding to solid wood, multiplex or metallic sub-structure materials. The specified adhesive thickness must be ensured in order to elastically absorb any movement of the board. To fix compact panels to the substructure without them being visible, we recommend, for example, Panel-loc from MBE.

Adhesive recommendations

OTTO CHEMIE	JOWAT	INNOTECH	MBE	SIKA	PRO PART	DKS Technik
Ottocoll M500 Ottocoll M560	Jowat 690.00	Adheseal Project Powerbond XS 330	Panel-loc	SikaTack* Panel		

Surface bonding

Surface gluing of large dimensions is only possible in exceptional cases. Joints that are subject to major stress, for example from vibrations, impacts, etc., should be reinforced with mechanical connecting elements.

Due to the materials' inability to absorb moisture or gases that may be present, full-surface bonding of EGGER Compact Laminates with laminates is not recommended.

Screwing

It is perfectly possible to cut threads into Compact Laminates. Self-tapping screws can also be used. Threaded screws with a fine pitch are recommended, as they provide better pull-out resistance. Pre-drilling is essential in all cases. In the case of high tensile loads, it is advisable to use a screw-in sleeve, e.g. RAMPA Type ES, or – for thin Compact Laminates from 6 mm – RAMPA Type E. This also allows for a higher degree of prefabrication and easier disassembly. For screw connections parallel to the panel surface, a minimum screw-in depth of 25 mm must be observed, and the diameter of the borehole must be selected so as to prevent the panel from splitting.

Flat screw connections with through-holes must have sufficient clearance to accommodate dimensional changes caused by fluctuations in temperature and humidity. The diameter of the hole should be 2 to 3 mm larger than the diameter of the fastener. This prevents stresses arising from expansion and contraction caused by changes in climate. The use of countersunk screws – see Figure 19 – is not recommended, as these prevent the panel from expanding. Instead, flat-head screws should be used – see Figure 20. These are also available with a painted head from various manufacturers (e.g. MBE).



Figure 19: Incorrect



Figure 20: Correct

PLEASE NOTE:

- Drill a hole 2 to 3 mm larger in diameter than the screw shank
- Avoid using countersunk-head screws
- Design of sliding and fixed points

The design of fixed and sliding points applies to both vertical and horizontal configurations, regardless of the application; see next page.

Fixed points

The fixed point serves to distribute the expansion clearance evenly and should be positioned as centrally as possible. The bore diameter is the same as the diameter of the fastener – see Figure 21.

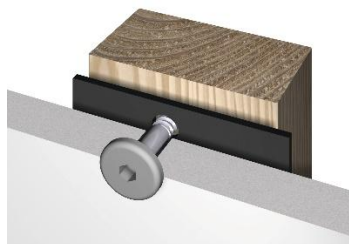


Figure 21: Incorrect fixing of a Compact Laminate

Floating points

The drill hole diameter for sliding points should be 2 to 3 mm larger than the fastener – see Figure 22. The drill hole should be covered by the screw head. Washers should be used where necessary. In the illustrations, an EPDM sealing tape is fitted to the timber substructure to protect against moisture. EPDM stands for ethylene-propylene-diene monomer. This is a synthetic rubber. EPDM is highly resistant to UV, ozone and other atmospheric influences.

The required expansion play is determined based on the greatest distance between the fixed point and the edge of the panel. The floating point drill hole diameter must be increased by 2 mm for every metre of length. During installation, care must always be taken to ensure that the screw is positioned exactly in the centre of the drill hole. Where necessary, this can be ensured using suitable drilling jigs. For indoor use, the fixing spacings listed in the table may be selected.

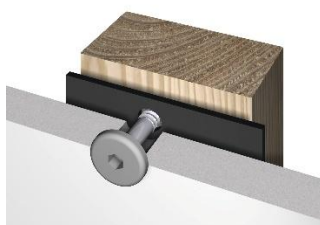


Figure 22: Correct fixing of a Compact Laminate

Panel thickness [mm]	Maximum fixing spacing	
	a [mm]	b [mm]
8	790	500
10	920	670
12	960	900
13	970	920

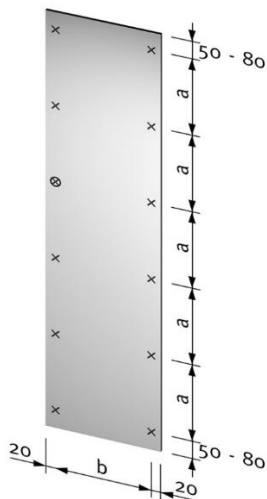


Figure 23

⊗ = Fixed point
x = floating-point

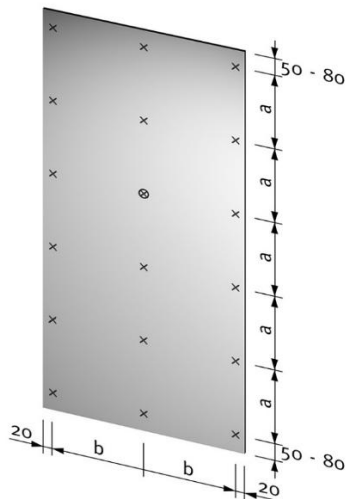


Figure 24

⊗ = Fixed point
x = floating point

Applications

Wall cladding

Due to their robustness and suitability for everyday use, Compact Laminates are particularly well suited for use as interior wall cladding. We recommend a minimum panel thickness of 8 mm for this purpose. The substrate must be completely dry before the cladding is installed. Always ensure adequate rear ventilation and that the panels have been allowed to acclimatise. The material must not be exposed to trapped moisture. All parts to be joined together must have the same production direction.

Substructure and rear ventilation

Compact Laminates must be fixed to a stable, corrosion-resistant and load-bearing substructure that safely supports the load of the wall cladding and ensures rear ventilation. In drywall constructions, the substructure and the compact panels must always be anchored to the stud framework.

The choice of fasteners must be tailored to the substrate and the weight of the wall cladding. Differences in climatic conditions in front of and behind the elements can lead to warping. Therefore, wall cladding using Compact Laminates must always be installed with adequate rear ventilation, which allows for temperature and humidity equalisation. Ventilation must be directed towards the room side.

If there is no rear ventilation, or if the ventilation gap is less than 2 cm, absorbent mineral substrates such as walls or plaster must be pre-treated with waterproof, elastic barriers. Suitable products are listed in the section [>> possible vapour barriers](#)

These barriers are generally applied by brushing and prevent water from penetrating the masonry, which is essential when used in humid conditions. Further information on the use of Compact Laminates in humid conditions can be found [>> in the section on sanitary facilities and shower enclosures](#)

Vertical battens generally allow air to circulate, whilst with horizontal substructures, adequate rear ventilation must be ensured through appropriate construction methods. The substructure should be aligned plumb to allow for full-surface, tension-free fixing. Suitable substructures include vertically arranged strips of timber, aluminium or Compact Laminates.

The maximum spacing of the battens or the substructure depends on the thickness of the Compact Laminate used. It is important that the supply and exhaust air areas remain unobstructed so that the necessary air circulation is not impeded. Also ensure that the moisture content of the substrate does not differ too greatly from the moisture content of the finished building element.

A distinction is made between:

- visible mechanical fixing
- concealed mechanical fixing
- concealed adhesive fixing

PLEASE NOTE

- Compact Laminates must always be installed without any constraint
- Compact Laminates must be able to achieve equilibrium moisture content on both the front and rear surfaces

Visible mechanical fixing

Fixing is carried out using screws or rivets on the substructure – see Figure 25. Once again, care must be taken to ensure sufficient expansion play and the correct positioning of sliding and fixed points. When using timber as the substructure, an EPDM strip must be used for decoupling. EPDM stands for ethylene-propylene-diene monomer. This is a synthetic rubber. EPDM is highly resistant to UV, ozone and other atmospheric influences. The fasteners are available with a head finish to match the decorations. For the rivets, a spacer must be used to provide approx. 0.2 mm of play in the rivet at the sliding points.



Figure 25: Visible mechanical fastening

Concealed mechanical fixing

The concealed fixing of Compact Laminates by hooking them into place allows for easy removal and is more visually appealing than visible fixing methods. The panels can be removed quickly and easily, and cables and pipes running behind the elements are easily accessible. Another advantage, depending on the fastening system chosen, is the ability to adjust the elements retrospectively. Furthermore, the elements can be installed without tension.

For all hanging fixing methods, a gap is required to allow the elements to be raised and lowered. This air gap, or 'hanging space', remains visible as a shadow gap.

Hanging using profile strips

For this fixing method, the horizontal substructure is grooved to hold the rebate rail attached to the wall element. To facilitate a good fit, the tongue of the rebated rail should be thinner than the groove. The rebated rails on the Compact Laminate elements should not extend across the entire width of the element, but should be intermittent to allow vertical air circulation. Rebate rails made of, for example, plywood or metal Z-profiles can be used without any problems. If secure screw fixing is not possible with thin Compact Laminate elements, they can also be glued.

Hanging using metal fittings

Systems using metal fittings are also available for fixing wall elements – see Figure 26. The selected system must be used in accordance with the manufacturer's guidelines to ensure secure fixing.

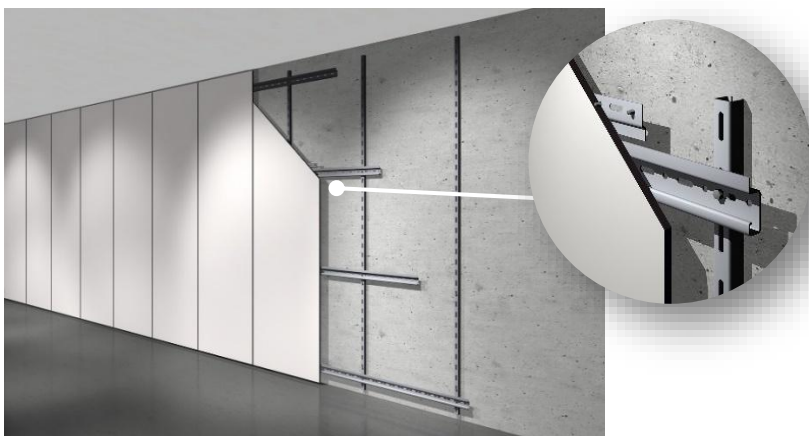


Figure 26: Concealed fixing of Compact Laminates

Recommendations for systems for concealed mechanical fixings:

- Duplex GmbH
- Brem Systeme GmbH
- GHK DOMO GmbH

Concealed glued fastening

Compact Laminates can also be mounted by bonding them to a load-bearing substructure using specially developed, permanently elastic adhesive systems. If timber is used as the substructure, it must be primed beforehand to ensure reliable adhesion and moisture isolation.

The systems consist of the adhesive, a mounting tape and appropriate products for pre-treating the surfaces prior to gluing. The mounting tape is used for initial fixing. Permanent fixing is achieved by the adhesive. Another function of the mounting tape is to create a defined gap. This ensures the specified adhesive thickness, enabling any movement of the panel to be absorbed elastically. Please follow the adhesive manufacturer's application instructions.

Detailed designs

Regardless of the chosen substructure and installation system, the following detailed designs are common practice and ensure the problem-free and permanent installation of wall cladding.

Joint and seam detailing

There are numerous ways to finish joints or butt joints – see Figures 27 to 29. It is important to ensure that the elements have sufficient scope for expansion. For the designs shown in Figures 28 and 29, a minimum panel thickness of 10 mm must be taken into account.

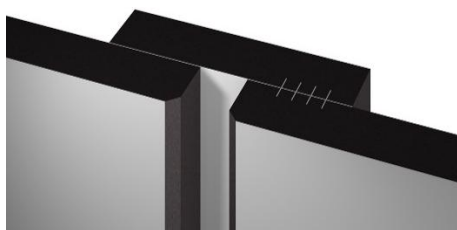


Figure 27



Figure 28



Figure 29

Top closure

The top closure of the wall cladding must be at a distance from the ceiling to allow for effective rear ventilation and to facilitate ventilation from the room. The gap between the ceiling and the compact board also provides the necessary expansion play – see Figure 30. To ensure that the rear ventilation system functions fully, the distance to the ceiling must be at least equal to the rear ventilation gap.



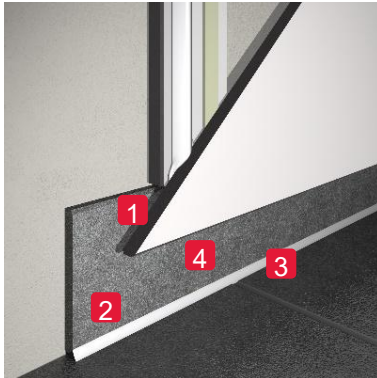
Figure 30: Finishing the wall cladding at the top

- 1 Air gap
- 2 Mounting tape
- 3 Adhesive
- 4 Distance to the ceiling

Bottom finish

The bottom closure of wall cladding using Compact Laminates can be achieved in two ways.

Finishing with a gap to the floor works in exactly the same way as finishing the Compact Laminate at the top. The gap between the Compact Laminate and the floor ensures sufficient air circulation behind the Compact Laminate and prevents moisture from accumulating behind the wall cladding. However, a minimum gap of 50 mm from the floor must be maintained – see Figure 31. Installed bases should be as thin as possible to ensure a sufficiently large ventilation cross-section is available.



- 1 Air gap
- 2 Tile base
- 3 Silicone joint
- 4 Minimum distance to the floor: 50 mm

Figure 31: Finishing the wall cladding at the bottom

For flush-to-floor installation, which is primarily used when fitting Compact Laminates in shower areas, the Compact Laminate must not rest directly on the floor, as the panel is subject to expansion and contraction – see Figure 32. A pre-compressed sealing tape (compression tape) is used to maintain the required distance during installation, thereby ensuring that the panel has sufficient room to expand later.

The gap between the Compact Laminate and the floor can then be sealed with a silicone joint to prevent moisture from entering. To improve the adhesion of the silicone, the edge of the Compact Laminate should be bevelled. To allow for air circulation in case of a bottom closure, the rear ventilation gap must be made as large as possible.



- 1 Sealing tape (compression tape)
- 2 Silicone joint

Figure 32: Floor-level installation for the shower area

Corner solution

Even with the corner solution in humid conditions using Compact Laminates, there must be a gap between the Compact Laminate and the wall of at least the thickness of the substructure. The corner joint between the two Compact Laminates must be sufficiently large to allow for dimensional changes caused by fluctuations in temperature and humidity. If the corner joint needs to be sealed – for example, when used in showers – this is again achieved using a sealing tape (compression tape) to ensure sufficient expansion play. The gap between the individual Compact Laminate is protected against moisture ingress by an additional sealing silicone joint – see Figure 33. Here too, it is recommended to finish the edge with a bevel.

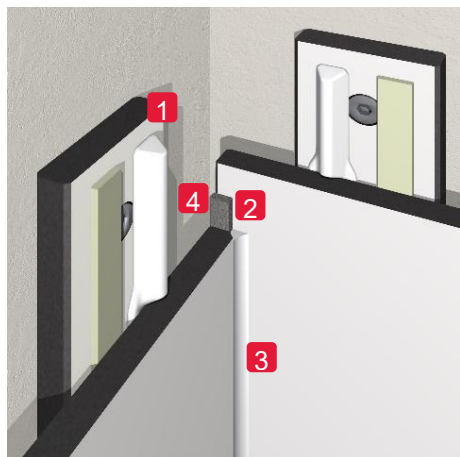


Figure 33: Corner solution in humid areas

- 1 Compact Laminate strip
- 2 Compression tape (sealing tape)
- 3 Silicone joint
- 4 Distance from the wall

Flush or front-mounted installation

Compact Laminates are commonly installed as half-height wall cladding to provide impact protection for wall finishes in hospitals. This allows for either a flush transition from the Compact Laminate to the plasterboard wall – see Figure 34 – or a front-mounted installation – see Figure 35. To ensure effective acclimatisation/ventilation of the Compact Laminate, this must be taken into account in the design.

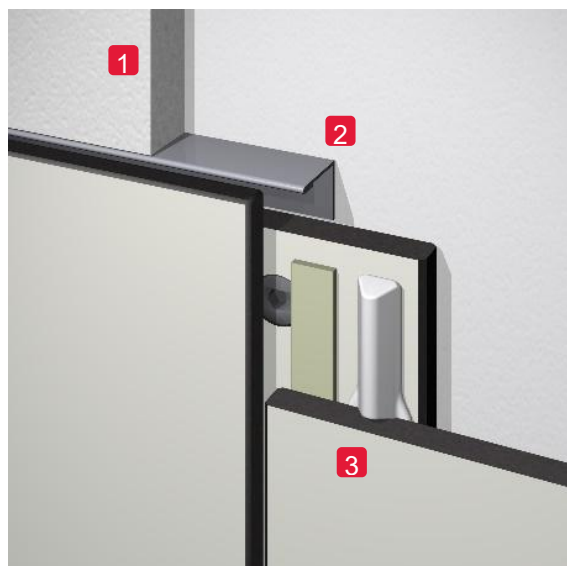


Figure 34: Flush installation

- 1 Wallpapered gypsum fibreboard
- 2 Stainless steel bracket
- 3 Compact Laminate



Figure 35: Front-mounted installation

Direct installation

In the case of partial wall cladding, it is common practice to fix the Compact Laminate strips directly to the wall using visible screws. Due to the lack of rear ventilation, it is essential to install a vapour barrier between the Compact Laminate and the wall. The maximum height of the Compact Laminate must not exceed 300 mm. The vapour barrier is installed on the wall side – see Figure 36.

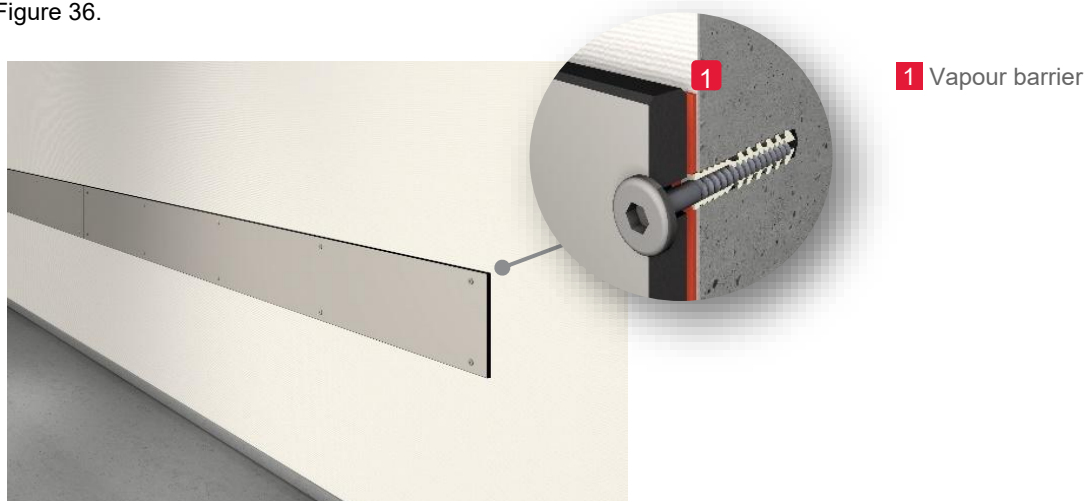


Figure 36: Direct installation

Possible vapour barriers

Liquid coatings

- OTTO CHEMIE: OTTOFLEX liquid membrane
- FERMACELL: Fermacell liquid membrane
- KNAUF: Knauf Surface Sealant

Waterproofing membranes

- OTTO CHEMIE: OTTOFLEX waterproofing membrane
- KNAUF: Knauf Waterproofing and Decoupling Membrane

Sanitary and shower partitions

When Compact Laminates are used in sanitary areas, care must be taken during construction and installation to ensure that the Compact Laminates are not exposed to standing water and that adequate ventilation of the rooms is guaranteed. Corrosion-resistant materials must be used for structures and fixings. Use in areas subject to heavy moisture requires that corner joints be mechanically reinforced, for example using dowels or clips, and that a waterproof-setting adhesive system be used. In cases of intensive commercial use, care must be taken to maintain a distance of at least 120 mm between the floor and the lower edge of the board.

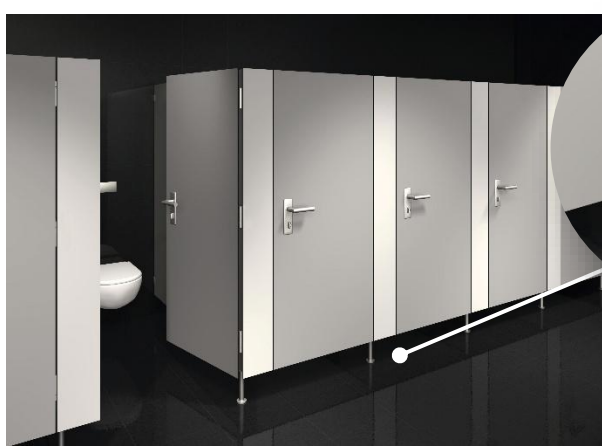


Figure 37: Shower cubicles

1 Spacing ≥ 120 mm

It is important to ensure that the rooms are adequately ventilated and that the compact panels can dry out after the shower facilities have been used.

Similarly, absorbent mineral substrates such as walls or plaster must be pre-treated with waterproof, elastic barrier coatings. These barrier coatings are generally applied by brushing and prevent water from penetrating the substrate. The German Construction Confederation has published a technical information sheet (available for a fee) on precisely these waterproofing systems and barrier coatings >> [Composite waterproofing systems](#)

This technical data sheet describes liquid-applied composite waterproofing systems for use with tiles and boards in both internal and external areas, taking into account defined moisture exposure classes and substrates. You can find suitable waterproofing systems under >> [direct installation](#). The moisture exposure classes of the materials must be agreed with the manufacturers or suppliers. The application instructions provided by the respective manufacturers must be strictly observed.

PLEASE NOTE

- Sealing the substrate for shower cladding
- Always use elements for shower enclosure doors cut to length
- Compact Laminates must not be exposed to standing water
- Compact Laminates must be able to achieve equilibrium moisture content on both the front and rear sides



Figure 38: Example of use in a bathroom © Andreas Wimmer

Furniture doors

Doors should not be wider than they are tall. As dimensional changes in the longitudinal direction are only half as great as those in the transverse direction, it is advisable to cut door leaves from the Compact Laminate in the longitudinal direction. Too great a difference in temperature or humidity between the front and back of the door can cause the Compact Laminate to warp. Therefore, when installing doors in areas such as sanitary cubicles or changing rooms, ensure there is sufficient air circulation. The key factors determining the number of hinges are the door's width, height and weight. Other factors, such as the location of use or additional expected loads – for example, from coat hooks – can vary significantly from case to case and must be taken into account.

For this reason, the specifications should be regarded only as a guide for a 13 mm thick door up to 600 mm wide – see **Figure 39**. A test fitting is recommended. In the case of heavy loads, an additional hinge may be fitted no more than 100 mm below the top hinge. The minimum distance between the top and bottom hinges and the outer edge should be no more than 100 mm.

Possible fitting manufacturers:

- Prämata Series 3000
- Blum Expando T
- Hettich Sensys thin-door hinge
- Häfele special hinge, for laminated doors (laminates)

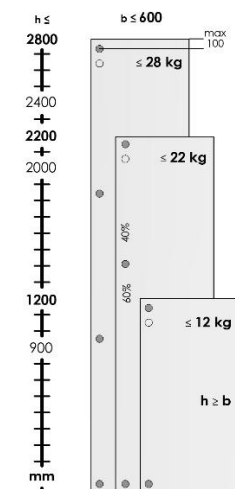


Figure 39: Guide values for a 13 mm thick door



Figure 40: Hinge © Prämeta

Table tops

Compact Laminates are very well suited for use as table tops, for example for office desks, writing desks, school desks, meeting tables and workbenches. The board thickness, mounting distances and the overhang beyond the base frame must be designed to accommodate the expected loads. Tabletops must be at least 10 mm thick to ensure there is sufficient material for secure screw fixing – see Figure 41. The tabletop can be fixed to the base frame in various ways. It is important to ensure tension-free assembly. Screws can be screwed directly into the top, or a screw-in sleeve can be used. The fixing points in the substructure must be provided with sufficient expansion play. The diameter of the drill should be 2 to 3 mm larger than the diameter of the fastener.



- 1 Crossbar
- 2 Fastener

Figure 41: Recommended fastening method for the compact tabletop

Tabletop thickness [mm]	Overhang [mm]	Mounting distance [mm]
10	max. 100	310
12	max. 150	390
13	max. 200	440

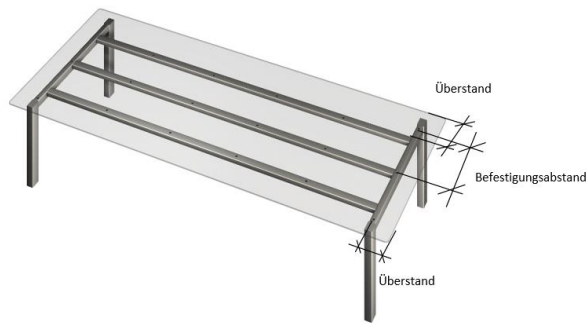


Figure 42: Application example with spacing

Compact Laminate Worktops

You can find the installation instructions for Compact Laminate Worktops under >>[Processing instructions EGGER Worktops](#)

Care and cleaning recommendations

Thanks to their hygienic and non-porous surface, EGGER Compact Laminates do not require any special care. As a general rule, stains and spilled substances such as tea, coffee, wine etc. should be removed immediately, as leaving them for a longer period makes cleaning more difficult. If cleaning is necessary, use gentle cleaning products. In particular, cleaning products must not contain any abrasive ingredients, as these can cause changes in the gloss level and lead to scratches.

The following guidelines should be observed in daily use:

- Compact Laminates should not be used as a cutting surface, as knife cuts will leave marks on Compact Laminates surfaces. Always use a chopping board.
- Placing burning cigarettes on the surface of compact laminate causes surface damage. Always use an ashtray.
- Avoid placing hot cookware, such as pots, pans, etc., directly onto the Compact Laminate surface, as this may cause a change in gloss or surface damage depending on the heat exposure. Always use a heat-resistant mat.
- Spilled liquids should always be cleaned up or removed immediately, as prolonged contact with certain substances can cause changes in the gloss level of Compact Laminates surfaces. Spilled liquids must be wiped up thoroughly and promptly, particularly in the areas around cut-outs and joints.

For detailed information, please refer to the technical data sheet >>Cleaning and Care Recommendations for EGGER Product surfaces

Accompanying documents / product information

For further information, please refer to the documents listed below:

- » Technical data sheet "EGGER Compact Laminates Black Core"
- » Technical data sheet "EGGER Compact Laminates Coloured Core"
- » Technical data sheet "EGGER Compact Laminates Flammex Flame Retardant"
- » Technical information sheet "Resistance of EGGER surfaces to disinfectants"
- » Technical information sheet "Cleaning and Care recommendations for EGGER product surfaces"

Disclaimer:

These processing instructions have been compiled to the best of our knowledge and with due care. The information is based on practical experience and our own tests and reflects our current state of knowledge. It is provided for information purposes only and does not constitute any assurance of product properties or suitability for specific applications. No liability can be accepted for printing errors, errors in standards or other inaccuracies. Furthermore, technical changes may result from the continuous development of EGGER Compact Laminates, as well as from amendments to standards and public law documents. Consequently, the content of these processing instructions cannot serve as either a user manual or a legally binding basis. Our General Terms and Conditions of Sale and Delivery apply in all cases.