Processing instructions STEICO wood fibre insulation boards for ETICS

Environmentally friendly building
products from renewable raw materials

Technology and details

NEW

The STEICO render system
for facade insulation:

- **WOODEN FRAME CONSTRUCTION**
- **SOLID WOOD CONSTRUCTION**
- **MINERAL SUBSTRATES IN ASSORTMENT**

All from one system:

- Wood fibre insulation boards from the wet and dry process

STEICO
Das Naturbausystem

Content

TABLE OF CONTENTS

Introduction

| THE ECOLOGICAL BUILDING SYSTEM OF STEICO

The STEICO system combines construction and insulation - all based on the renewable raw material wood

The STEICO Group, headquartered in Feldkirchen near Munich, is the world's largest manufacturer of ecological wood fibre insulating materials. For decades

STEICO insulation materials have been used to protect buildings around the world against cold, heat, humidity and wind. The extensive range of insulating materials is supplemented by innovative construction products. This makes it possible to obtain the complete load-bearing and insulating building envelope from a single source. Independent tests regularly confirm the high and consistent product quality of STEICO construction products.

STEICO wood fibre insulation materials are manufactured exclusively from fresh, untreated coniferous wood from sustainable forestry. The fresh wood is then split into fibres and, depending on the type, further processed in one of the following processes:

Wet process for wood fibre insulation materials

This process has been tried and tested for decades. Still wet wood fibres are formed to the boards. The entire board is then dried. The boards are bound by the wood's own component lignin. No additional binder is added. This makes the panels particularly eco-friendly.

Dry process for wood fibre insulation materials

Within these processes, the wood fibres are first dried, then wetted with a binding agent and formed into boards. These boards are characterised by their low weight, which is advantageous when large insulation thicknesses are used. STEICO products from the dry process can be identified by the suffix "dry".

We offer you both STEICO*protect* or STEICO*duo* from the wet process as well as STEICO*protect dry* or STEICO*duo dry* from the dry process.

Both board types are ideally suited for robust constructions and have a water-repellent function with simultaneous diffusion openness.

Foreword

| ETICS-SYSTEMS WITH STEICO RENDER BASE BOARDS

The STEICO system components and accessories are matched to each other. That gives you security.

STEICO provides suitable boards for various requirements and working methods in small and large formats as well as with blunt edges or with tongue and groove. Special formats are available on request.

We offer you the render baseboards STEICO*protect* up to 100 mm and STEICO*protect dry* up to 240 mm. STEICO*duo* or STEICO*duo dry* are available in our product portfolio, sized 40 and 60 mm respectively.

The render baseboards are offered in different densities, which are additionally marked as Type L (low), Type M (medium) and Type H (high density)

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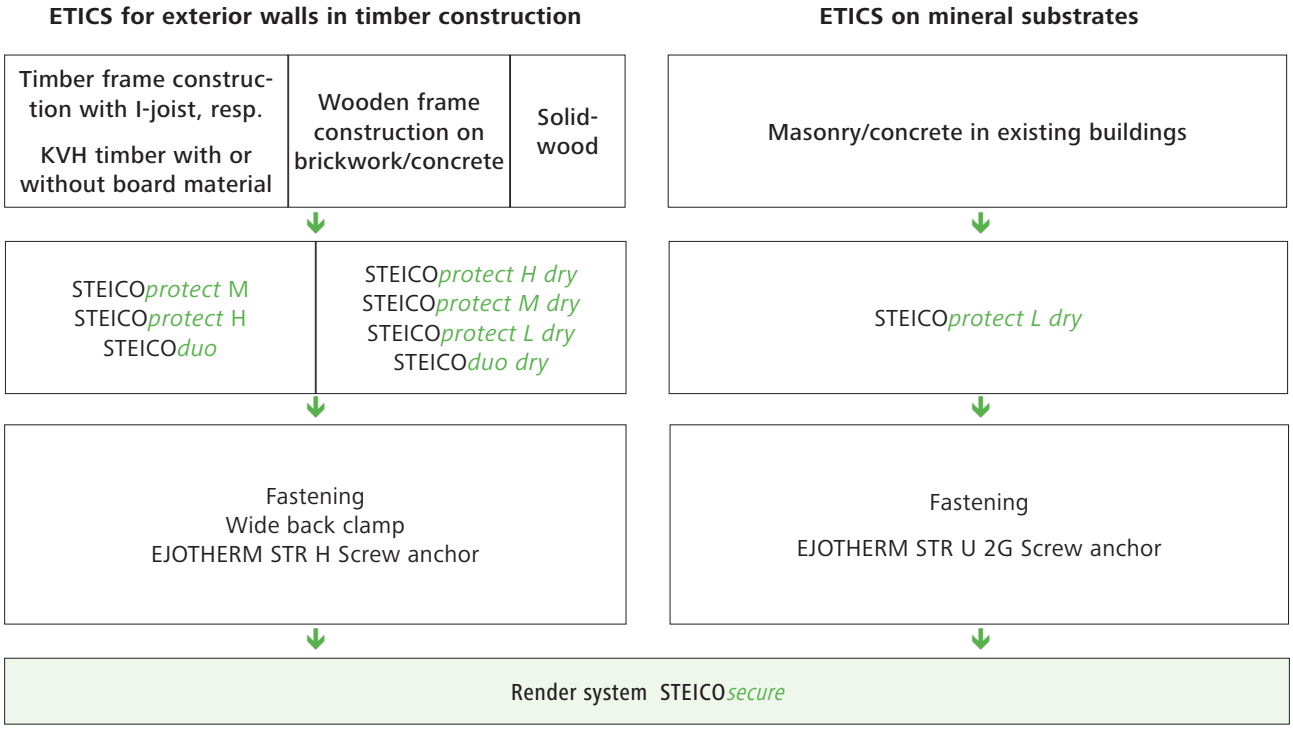
For any technical questions you are welcome to contact our application technology department.



FOR EXTERIOR WALLS IN TIMBER CONSTRUCTION WITH STEICO*wall* / STEICO*joist* / SOLID WOOD

Due to the very good strength properties of STEICO wood fibre insulation boards, they are particularly suitable for use in wooden frame construction. The open diffusion properties of the wood fibre insulation boards and the render systems enable wall constructions with a high evaporation potential.

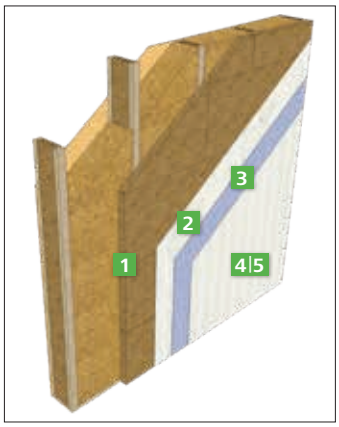
The wood fibre insulation boards are mounted directly on the wooden handles of wooden frame constructions as external cladding. The wooden handles can be made of STEICO*wall* / STEICO*joist* cross beams or solid wood.

The use of a board material between the wooden stand and the STEICO*protect* / STEICO*protect dry* is possible according to the approval, but it may impair the evaporation potential of the overall construction and is therefore not recommended as a rule.

Energy-efficient structural solutions for outside walls with rendered facade can be found in the “Report on passive house certification"

ZERTIFIZIERTE KOMPONENTE
Passivhaus Institut

www.steico.com/Passivhaus.



Wooden frame constructions without board material outside

LAYER STRUCTURE

1 WOOD FIBRE INSULATION BOARD
STEICO*protect M* / *H* or
STEICO*protect L dry*
STEICO*duo* / STEICO*duo dry*

FASTENING
Wide back clamp or
EJOTHERM STR H screw dowel

2 REINFORCING MORTAR

REINFORCING FABRIC

3 INTERMEDIATE COATING (OPTIONAL)

FLEX SLURRIES (BASE AREA)

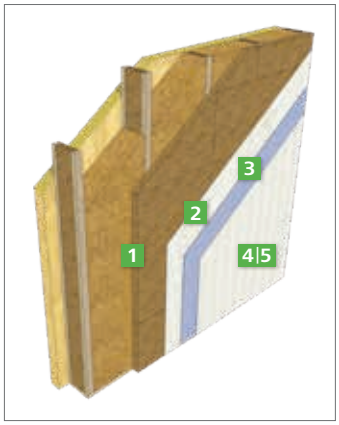
4 TOP COAT

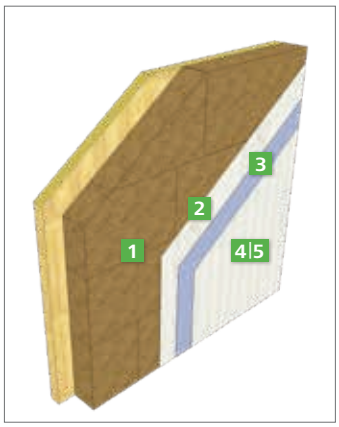
5 VARNISHING♦

FOR EXTERIOR WALLS MADE OF SOLID, EXTENSIVE WOODEN COMPONENTS

Also on solid wooden walls (e.g. STEICO *LVL* 30 mm, elements from board stacks, cross laminated timber or glued laminated timber), the use of STEICO wood fibre insulation boards has proved to be very successful. Basically, there are two different types of mounting:

- Application of an additional compartment level (STEICO*wall* / STEICO*joist*-or KVH timber), on which the STEICO*protect* /STEICO*protect dry* / STEICO*duo* / STEICO*duo dry* wood fibre insulation boards can be mounted.
- Direct surface mounting of the STEICO*protect dry*/ Wood fibre insulation boards





LAYER STRUCTURE

1 WOOD FIBRE INSULATION BOARD
STEICO*protect M* / *H* or
STEICO*protect L dry*
STEICO*duo* / STEICO*duo dry*

2, FASTENING
Wide back clamp or
EJOTHERM STR H screw dowel

2 REINFORCING MORTAR

REINFORCING FABRIC

3 INTERMEDIATE COATING (OPTIONAL)

FLEX SLURRIES (BASE AREA) ADHESIONPROMOTER

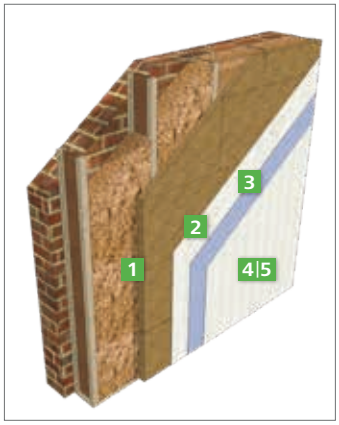
4 TOP COAT

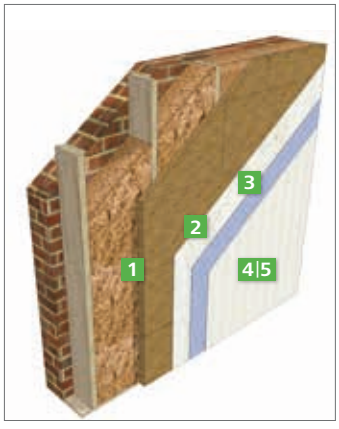
5 VARNISHING♦

FOR EXTERIOR WALLS MADE OF MINERAL BUILDING MATERIALS WITH ADDITIONAL WOODEN FRAME CONSTRUCTION

STEICO wood fibre insulation boards can be used for renovation and new buildings by means of an additional wooden frame construction (compartment level) made of STEICO*wall* / STEICO*joist* I-joist or solid wood cross sections on mineral substrates. Particularly on critical substrates with no longer load-bearing render or uneven surfaces that need to be levelled, renovations can be carried out without costly preparatory measures. Any installation guides (cables, water/heating pipes, connection of solar elements in the roof area) can be laid behind the render baseboard in a thermally protected manner.

The use of stable wood-based materials creates a resilient surface. In combination with air-injected insulating materials such as STEICOcell (wood fibre) or STEICO*floc* (cellulose) in the compartments, highly insulated and economical constructions can be created.





LAYER STRUCTURE

1 WOOD FIBRE INSULATION BOARD
STEICO*protect M* / *H* or
STEICO*protect M dry* / H dry
STEICO*duo* / STEICO*duo dry*

2. FASTENING
Wide back clamp or
EJOTHERM STR H screw dowel

3 REINFORCING MORTAR

REINFORCING FABRIC

4 INTERMEDIATE COATING (OPTIONAL)

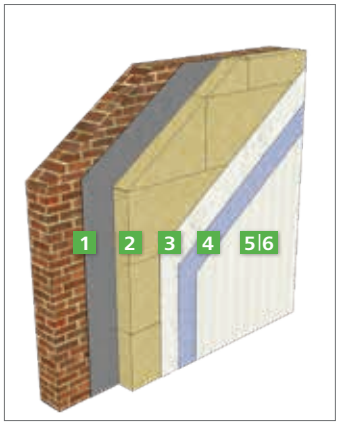
FLEX SLURRIES (BASE AREA) ADHESION PROMOTER

5 TOP COAT

6 VARNISHING♦♦

FOR EXTERNAL WALLS MADE OF MINERAL, EXTENSIVE COMPONENTS EXISTING

STEICO wood fibre insulation boards can be applied directly to rendered or unrendered masonry or concrete substrates during renovation. The wood fibre insulation boards are fixed to the substrate with adhesive mortar and additional dowelling.



LAYER STRUCTURE

1. ADHESIVE MORTAR

2. WOOD FIBRE INSULATION BOARD
STEICO*protect L dry*

FASTENING
EJOTHERM STR U 2G screw anchor

3 REINFORCING MORTAR

REINFORCING FABRIC

4 INTERMEDIATE COATING (OPTIONAL)

FLEX SLURRIES (BASE AREA)

ADHESION PROMOTER

5 TOP COAT

6 VARNISHING♦

BUILDINGS AND ARCHITECTURE

- Plan sufficiently large roof overhangs (or terraces/balconies) as structural component protection
- Do not select too dark colours (light reference value ≥ 20)
- Adjust the choice of render thickness to the local climatic conditions (e.g. driving rain)
- Do not choose too small a render grain size (recommendation ≥ 2 mm)
- In the case of increased requirements on the execution (dimensional tolerances) this must be agreed with the client as appropriate
- Take into account the nearby plants, in terms of microorganisms on the render surface
- Adjust the exterior lighting to the render surface and exclude stray light if necessary

LAYER STRUCTURE

STEICO*secure* ETICS systems are classified as **normally flammable**.

Wall constructions with fire resistance classes from REI30 to REI90 can be manufactured with STEICO render base boards.

PROCESSING ON WOODEN SUBSTRATES

- For insulation thicknesses up to approx. 140 mm, fastening to the wooden frame using clamps instead of screw dowels is recommended
- Observe the guidelines for proper use of fastening elements

PROCESSING ON EXISTING MINERAL SUBSTRATES

- When renovating mineral building materials, a high core moisture of the substrate must be avoided.
- The internal render as the internal airtight layer must be installed and sufficiently dried before the external insulation is applied.

RENDERING OF WOOD FIBRE INSULATION BOARD

- More detailed advice on V-notch trowel (see page 28) It can be used to protect the wood fibre insulation board from weathering. Outdoor weathering of up to 5 months is thus possible if the teeth of the trowel are not completely pressed through and minimal reinforcing mortar remains.
- The execution of the reinforcement layer in two operations is recommended

HANDOVER OF TRADE

If the fixing and rendering of the insulation boards is carried out by two different companies, it is advisable to arrange an appointment with the parties involved (woodworkers, renderers, possibly construction management) in order to transfer the facade from woodworker to renderer. Disagreements can be discussed and assigned to the respective trades.

For this handover of the trades, checklists can be found in the appendix to these processing instructions (see page 32)

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General processing instructions

GENERAL

The STEICO product range offers outstanding possibilities for the planning of energy-efficient and economical component structures in the wall area.

At this point we would like to refer you to our STEICO design booklets, the STEICO detail catalogue and the design details

STORAGE AND TRANSPORT

The STEICO wood fiber insulation boards are delivered lying on disposable pallets with rain-protected foil packaging. If the foil hood is damaged, additional measures (additional cover) are required. Please keep the packing slips shrink-wrapped into the packaging when opening the packages, as they allow quick access to the internal production data if you have any questions about the delivery.

On delivery, suitable lifting equipment (forklift, crane) should be available on site so that the pallets can be unloaded quickly without damaging the boards. For panel qualities H and M, a maximum of 3 pallets may be stacked on top of each other on a level, dry surface, and a maximum of 2 pallets for L. The maximum number of pallets that may be stacked on top of each other is 3. The pallets must be aligned flush and stored dry to avoid indentations of the top or bottom panel surface.

When removing or relocating individual boards, make sure that a sufficient number of bearing timbers is available.

The boards must be stored lying flat and dry. Individual boards should be covered during longer storage periods in order to avoid soiling and greying of the board surface due to UV exposure. The boards must be protected from edge damage.

UNDERGROUND TESTING AND PREPARATION

Wood substrates

The substrate must be carefully checked immediately before installing the boards. It must be flat / free of offset, clean, dry (wood moisture ≤ 20 %) and wide enough for fixing.

For wooden frame constructions, the maximum permissible axial dimension of the compartments must be checked (see page 15).

Mineral Substrates

The substrate must be dry, dust-free, level, sufficiently load-bearing and free from separating substances.

In masonry construction in particular, the interior rendering work should be completed before the thermal insulation composite system is installed so that the exterior walls are not exposed to increased moisture.

Particularly in new buildings, continuous protection against precipitation water must be ensured before installing the thermal insulation. Moisture penetration through the mineral substrate is not permitted.

Particularly when renovating old buildings, care must be taken to ensure that rising damp is excluded.

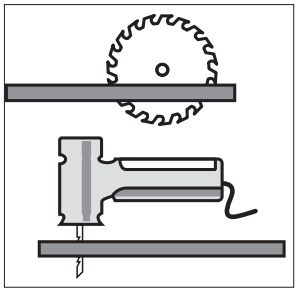
Before installing the insulation boards, all horizontal covers should be installed in order to be able to make an appropriate driving rain-tight connection.

Loose layers of render must be removed and any defects must be levelled out.

Unevenness of up to approx. 10 mm can be levelled out with the mineral adhesive and reinforcing mortar STEICO*secure* Base (applied using the point and bead method).

In case of larger unevenness, a levelling render should be applied, which must be completely dry before rendering. Alternatively, the installation of an additional wooden frame construction can also be planned

| BOARD PROCESSING



For processing of the STEICO render baseboards, STEICO offers cutting table STEICOisoflex-cut-combi

a mobile system for cutting and fast processing of insulation materials.

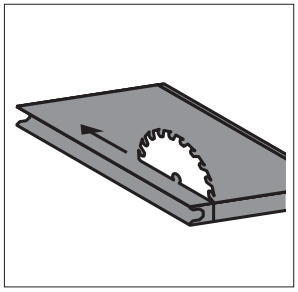
Moreover, processing with typical woodworking tools is possible (hand-held circular saw, jigsaw, chain saw).

When cutting wood fibre insulation boards, suitable measures must be taken (dust extraction, filter systems). The usual safety regulations for the processing of wood-based materials apply.

BOARD ASSEMBLY

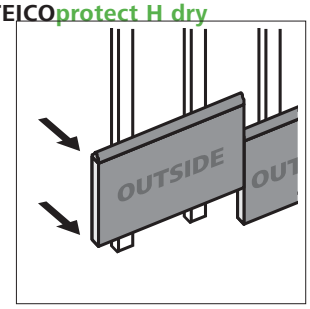
General Information

In the case of profiled panels, the groove profiling of the lower longitudinal side of the board must be removed for the first assembly row so that a blunt board edge is created. Blunt board edges must also be provided for corner versions.



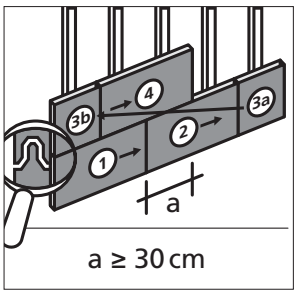
Profiled boards are mounted with the tongue pointing upwards. The stamping on the boards gives

the installation side. For waste optimization STEICOprotect H / STEICOprotect M boards and STEICOprotect H dry / STEICOprotect M dry boards can be turned. With the STEICOduo / STEICOduo dry this is also the case.

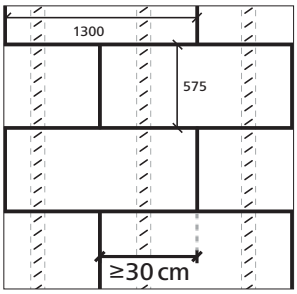


Join offset

The tongue and groove boards are processed endlessly with floating joints horizontally, a minimum set of vertical (short) board joints of 30 cm between the laying rows must be observed. Vertical joints in a compartment directly above each other (cross joints) are not permitted.



If air-injected insulation is used, vertical joints must be moved by the distance between the elements of the wooden frame.



When installing the STEICO wood fiber insulation boards in the opening area, make sure that the boards are not pushed vertically or horizontally directly into the opening corners, but are offset by at least 15 cm (revolver cut). This counteracts stress concentrations in the insulation board plane (the additional arrangement of the diagonal reinforcement strips

in the reinforcement layer must be observed). If there is a board joint in the opened corner, this joint must be glued with STEICO*multi fill*

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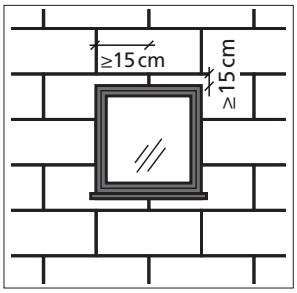
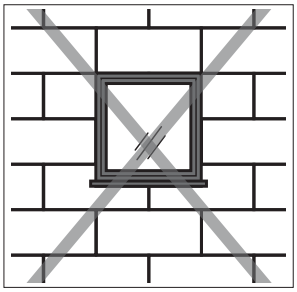


correct

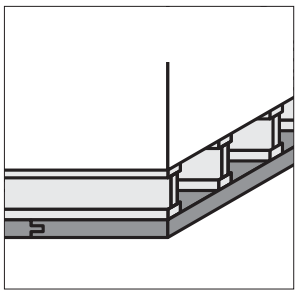


incorrect

Board mounting on wall surfaces
The single board must be fixed on at least two handles. If the board is to be fixed to a handle, as in the case of corners, the vertical joint must be glued with STEICO*multi fill*.

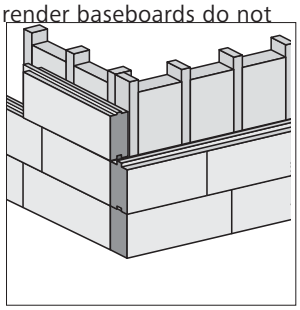
BIf STEICO*zell* is used as the partition insulation material, the grid spacing of the substructure in the edge area can be reduced in order to achieve higher stability.

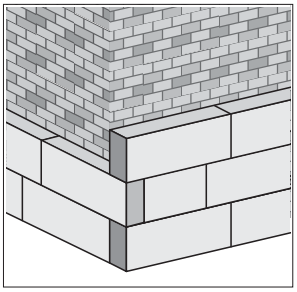
Board mounting from below



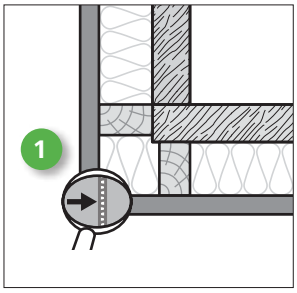
A board assembly from below, which is necessary e.g. for projecting upper storeys, can be carried out with STEICO*protect H* / STEICO*protect H dry* / STEICO*duo* / STEICO*duo dry* boards in 60 mm thickness. The grid dimension of 41.7 cm must not be exceeded. The number of fasteners increases by ⅓.

Corner formation
In timber construction, STEICO render baseboards do not have to be interlocked in the corner area.
When gluing blunt panel formats on mineral substrates, corner toothing is necessary. Bonding of the butt joints and bearing joints is not necessary
.





An attachment to a handle located in a corner is sufficient. If this is not the case, the vertical joint must be glued using STEICO*multi fill* between the front side and the back of the corner boards.



1 STEICO*multi fill*

STEICO*multi fill* is applied as a bead (diameter approx. 8 mm) in wave form to the front side of the already mounted board.

STEICO Wood fiber insulation boards Thickness in [mm]	Maximum overhang for glued STEICO render base board external corners [mm]
40	160
≥60	200

| JOINT FORMATIONS

Open joints in board joints in the facade surface

Joints between boards with a width of 2 - 5 mm must be filled with STEICOmulti fill 2 cm deep or up to the tongue. Joints in the façade with a width > 5 mm must be filled with fitting pieces, glued with STEICOmulti fill and then grinded. This allows vertical forces to be transferred and thus prevents marks in the render.

Floor joint

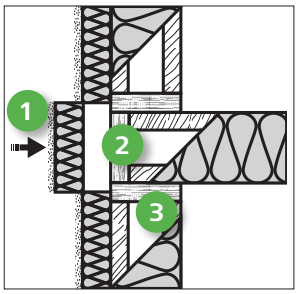
The floor joint in wooden frame constructions must be tension and compression resistant as well as settling proof and thermal bridges minimized. Compressive forces must be absorbed by the load-bearing wooden structure. Force transmission in the ETICS can lead to creases.

UTo prevent settlement due to shrinking wood, use STEICO *LVL X* (laminated veneer) as the edge plank in the intermediate area. Fitting pieces for floor joints must be glued in using STEICO*multi fill* in order to be able to rule out later buckling of the render.

If, due to inaccuracies during processing, panel joints should nevertheless occur, these joints must first be backed with a dimensionally stable and pressure-resistant wood-based material. The last 20 mm of the joint must be filled with

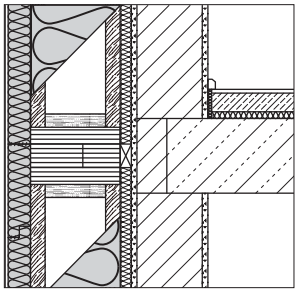
STEICO*multi fill* and then grinded

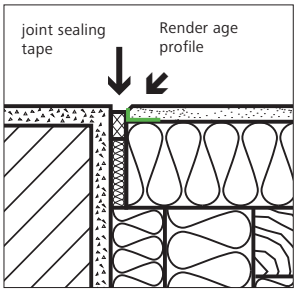
.



NOTES:
1 Glue in 1 fitting piece with STEICO*multi fill*, then grind , the bullet joint. .
2 STEICO *LVL X*
3 Tensile and compression-proof connection

see construction detail p. 64





Expansion joints

Expansion joints in component connections

They occur when connections to other components are made e.g. roof boards or extensions. It is also a movement joint between the perimeter insulation of the basement and the timber construction of the ground floor.

These joints are made with a STEICO Joint Sealing Tape and a STEICO Render Finishing Profile.

Building expansion joints

Expansion joints in buildings must be considered in the ETIC system at the same place and must not be rendered over. Vertical expansion joints must also be provided for building lengths of > 20 m. The expansion joints must be installed in the same place in the ETIC system.

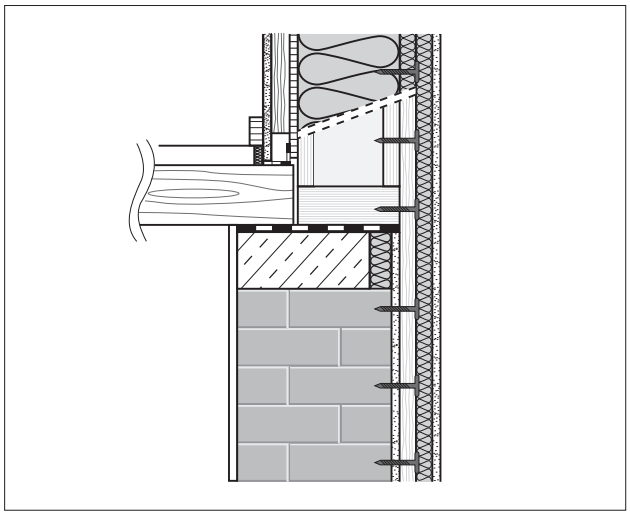
Extensions

In the case of extensions, different movements occur between the solid structure and the timber construction, which lead to cracks in a render layer. Therefore, this junction is usually carried out with an overhang of the timber construction with drip edge.

If a continuous render layer is required, the following procedure makes sense:

The timber construction of the extension (outer edge of the timber frame work) must be flush with the solid structure. Construction timber of at least 6 * 6 cm is screwed onto the legs of the timber frame construction, which protrude into the solid construction and are dowelled with it. The joints of the 6 * 6 cm squared lumber must be offset in height.

Subsequently, the compartment that was created on the entire facade is insulated with STEICO*flex*. This substructure is then used to fasten STEICO*protect H* or STEICO*protect H dry* panels, which are then rendered.



AIR-INJECTED INSULATION

Even with air-injected insulating materials such as STEICO*zell* / STEICO*floc*, it is necessary to attach the individual STEICO render baseboard to at least two handles. The vertical joints must be offset by compartments. In the corner area, the grid dimension of the substructure can be reduced if necessary in order to achieve greater stability. Cross joints are not permitted.

If a air-injected insulating material is injected into the compartment behind the STEICOprotect / STEICOprotect dry, it must be injected completely, securely and void-free before the render coating of the STEICOprotect /STEICOprotect dry panels.

Air-injected openings can be closed with STEICO*multi fill* and STEICO wood fibre stoppers.

It is absolutely necessary to grind the closures before applying the render

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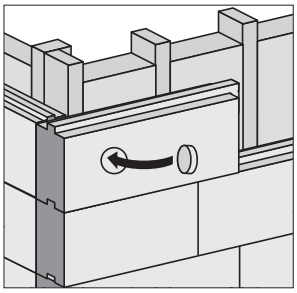


| LIGHTER LOADS FOR MOUNTING

Light loads such as exterior lamps or letterboxes can be fastened to the STEICO*protect* / STEICO*protect dry* board with insulating material dowels such as the STEICO mounting spiral. The hole for the mounting spiral must be predrilled with a wood drill with a diameter of 8 mm.

With this design, care must be taken to prevent moisture from penetrating (driving rain). If possible, a joint sealing tape should be used when penetrating and the connection should be sealed with a permanently elastic, reworkable joint sealant

.

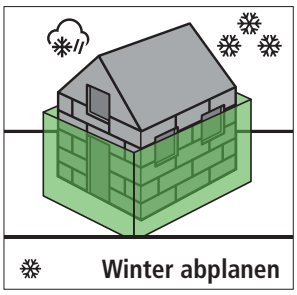
Larger loads, such as awnings, must be taken into account at the planning stage. For this purpose, a load-bearing substrate must be created below the ETICS (e.g. STEICO *LVL* veneer laminated wood) in order to be able to safely transfer loads to the wall structure using suitable fastening systems.

This substructure must be insulated with at least 60 mm STEICO*protect H* / STEICO*protect H dry*

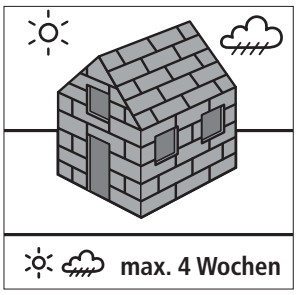
(product information see page 8)

| OUTDOOR EXPOSURE

The finished wall surface can be exposed to normal weathering (predominantly dry periods with light / short rain) for four weeks until the render coating is applied.



Horizontal front edges of the board must be suitably covered if they are exposed to the outside effects, just like edges exposed directly to rainfall



In principle, the construction site can be overwintered when a tooth filling is applied. If the teeth of the notched trowel are not completely pressed through, minimal reinforcing mortar remains in the recesses. When combed vertically, the rainwater can flow off unhindered. Outdoor weathering of up to five months is thus possible

.

By planning off (temporary counter battens, working scaffolding, use of a roof overhang) a longer outdoor weathering can be achieved, especially with unexpectedly early winter periods.

In this case, all surfaces must be carefully checked before applying render and any joints or thickness offsets must be corrected. Temporary drains from unfinished roof drains must keep the water safely away from the wall surface.

Base areas on weather sides - ideally the complete facade surface - should be protected from moisture penetration and dirt caused by high spraying dirt (e.g. tarpaulins on the working scaffold). It must be possible to drain rainwater quickly and safely directly in front of the facade surface; under no circumstances must the wall cross-section be in permanent contact with moisture or moist soil masses. In the case of surfaces that have been exposed to the weather for longer periods of time, a visual inspection of the surface must be carried out before the render is applied. Corresponding reworking by sanding is necessary. The resulting dust must be removed by sweeping or vacuuming. Blowing with oil-free compressed air is also possible

.

(Limit humidity: see page <?>)

AREAS OF APPLICATION ON WOODEN SUBSTRATES OR MINERAL SUBFLOORS IN EXISTING BUILDINGS

Formats / Applications:

STEICO*protect* from the wet process

Product	STEICO*protect H*♦		STEICO*protect M*		
Range of application	Wooden stand with or without board material		Wooden stand with or without board material		
Thickness [mm]	40, 60	40, 60	80, 100	80	80, 100
Format [mm]	1325 * 600 2625 *1175	2800 *1250	1325 * 600	2625 *1175	2800 *1250
Cover dimension [mm]	1300 * 575 2600 * 1150	–	1300 * 575	2600 *1150	–
Edge formation	N + F	blunt	N + F	N + F	stumpf
Max. stand axis dimension [mm]	≤ 625	≤ 625	≤ 625	≤ 835	≤ 625

STEICO*protect dry* from the dry process

Product	STEICO*protect H dry* ♦		STEICO*protect L dry*	STEICO*protect M dry*	
Range of application	Wooden stand with or without board material		Mineral underground	Wooden stand without or with board material/ solid wood elements	
Thickness [mm]	40, 60	40, 60	100 - 240	60 - 200	60 - 160
Format [mm]	1325 * 600	2800 * 1250	1200 * 400	1325 * 600	2800 * 1250
Cover dimension [mm]	1300 * 575	–	–	1300 * 575	–
Edge formation	N + F	blunt	blunt	N + F	blunt
Max. stand axis dimension [mm]	≤ 625	≤ 625	–	≤ 625	≤ 625

♦ as a blunt reveal board thickness 20 mm, format 1350 mm * 500 mm

STEICO*duo* from the wet process

Product	STEICO*duo*
Range of application	Wooden stand with or without board material
Thickness [mm]	40, 60
Format [mm]	1.880 * 600
Cover dimension [mm]	1.855 * 575
Edge formation	N + F
Max. stand axis dimension [mm]	≤ 625

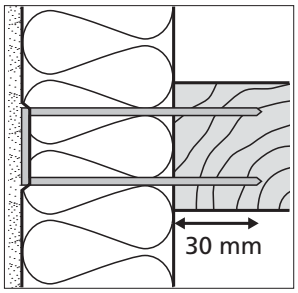
STEICO*duo dry* from the dry process

Product	STEICO*duo dry*	
Range of application	Wooden stand with or without board material	
Thickness [mm]	40, 60	
Format [mm]	1.880 * 600	3.000 * 2.500 6.000 * 2.500
Cover dimension [mm]	1.855 * 575	–
Edge formation	N + F	blunt
Max. stand axis dimension [mm]	≤ 625	≤ 625

| FASTENING MEANS

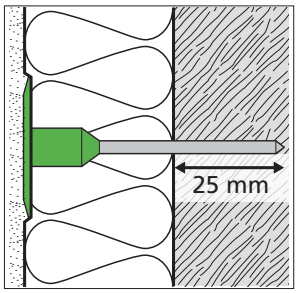
STEICO*protect* / STEICO*protect dry* boards can be anchored in the wood substrate with stainless steel wide back clamps or EJOTHERM STR H screw anchors.

Wide-backed clamp
(with 60 mm board thickness e.g. acc. to AbZ. 27*100*1,8mm)



- Approved stainless steel wide back clamp according to Eurocode 5.
- Insertion of the clamps close to the surface if possible, i.e. max. 2 mm deep and inclined at 30 °.
- Anchoring depth in the load-bearing wooden substrate min. 30 mm[2)]

EJOTHERM STR H Screw anchor [1)]



- Metal screw with plastic plate
- Torx drive TX 25
- Thermal decoupling of the screw by means of EJOTHERM STR insulation plugs, which must be inserted flush with the surface of the anchor. (Insulating plug is included in accessories)
- Place the screw plug on the outside with the upper edge of the plug flush with the wall surface.
- Anchoring depth in the load-bearing wooden substrate in accordance with applicable regulations min. 25 mm
- In the event that screw anchors have been driven in too deeply or screwed in, they must be filled flush with the surface before the reinforcing render is combed.

For cellular concrete and other substrates please refer to the EJOT data sheets.

1) Note: The screw-in depth of the EJOTHERM STR H screw-anchor is offered in the 40 mm range in order to ensure flush-surface driving of all panel types.

| LAYING THE WOOD FIBRE INSULATION BOARDS

The minimum number of fastening means according to the approval for the respective wind load must be observed. The characteristic wind suction w_{ek} and an aerodynamic pressure coefficient z_e and an aerodynamic pressure coefficient c_{pe}. (see Eurocode 1 Effect on Structures - Wind Loads)

Minimum number of fastening means per m² and max. permissible vertical distance between fasteners for timber frame constructions with or without panel materials (rib spacing 62.5 cm to 83.5 cm[5]) and for solid wood subfloors

Minimum number/m²	Characteristic effect from wind w_{ek} to [kN/m²]			maximum permissible vertical distance of fasteners [mm]
	-0,55	-1,00	-1,60	
EJOTHERM STR H Screw anchors				
STEICO*protect M* [1)]	4		6	–
STEICO*protect H* [1)]	4		6	–
STEICO*duo* [1)]	4		6	–
STEICO*protect L dry*	5	6	8	–
STEICO*protect M dry*	4		6	–
STEICO*protect H dry*	4		6	–
STEICO*duo dry*	4		6	–
Staples				
STEICO*protect M*	17	17	25	90
STEICO*protect H*	12	12	16	150
STEICO*duo*	12	12	16	150
STEICO*protect L dry* [2)]	18	25	34	70
STEICO*protect L dry* [3)]	25	38	55	70
STEICO*protect M dry*	10	15	20	90
STEICO*protect M dry*	15	22	33	90
STEICO*protect H dry*	6	8	10	150
STEICO*protect H dry*	7	10	14	150
STEICO*duo dry*	6	8	10	150
STEICO*duo dry*	7	10	14	150

1) With a rib spacing of 83.5 cm, the insulation board must be at least 80 mm thick.

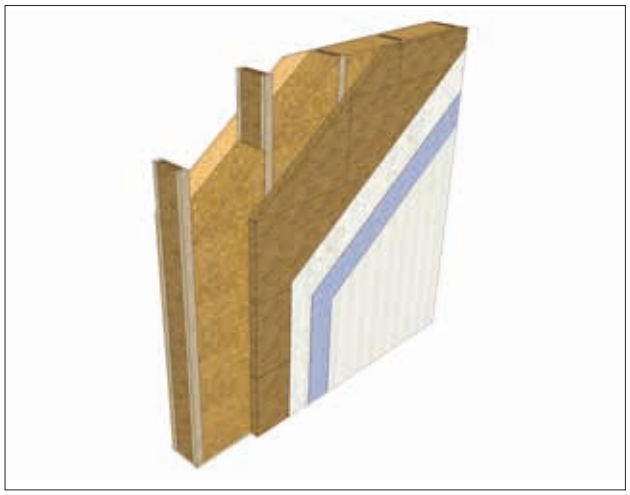
2) Clamps must always be placed on the board surface. It is not permitted to place the clamps on the panel joint, especially in the case of tongue and groove panels.

3) In the case of blunt board joints, a central, single-row clamp fastening is possible, taking into account the required edge distances.

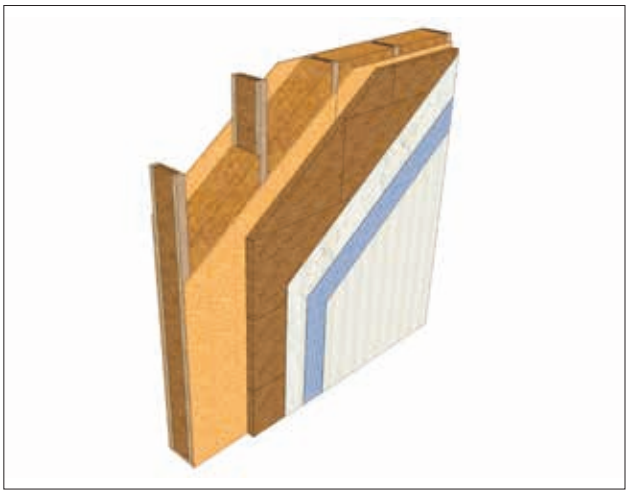
MOUNTING DIRECTLY ON WOODEN STANDS OR ON PANELS/COVERINGS MADE OF BOARDMATERIALS

In both cases, the insulation boards must be fastened directly to the stands, i.e. in the case of planking / cladding, the anchoring must be made through the board material into the wooden stands. The vertically permissible maximum distances of the fasteners must be observed. An even distribution of the fasteners over the height of the storey should also be strived for.

For stand distances up to 83.5 cm, the required thickness of the insulation board is at least 80 mm.



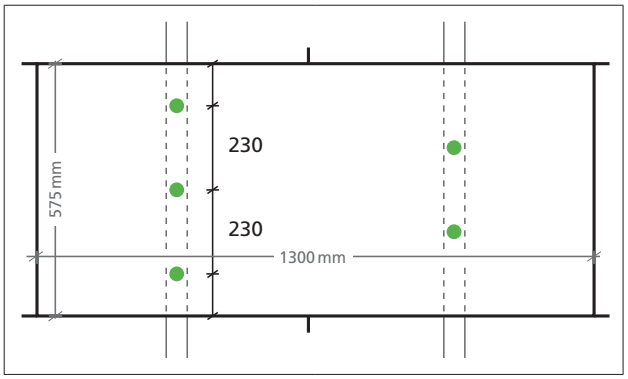
Wooden frame constructions without board material outside



Wooden frame constructions with outer board material

Fixing with EJOTHERM STR H screw anchor

(axial dimension of the wooden stand 62,5 cm)

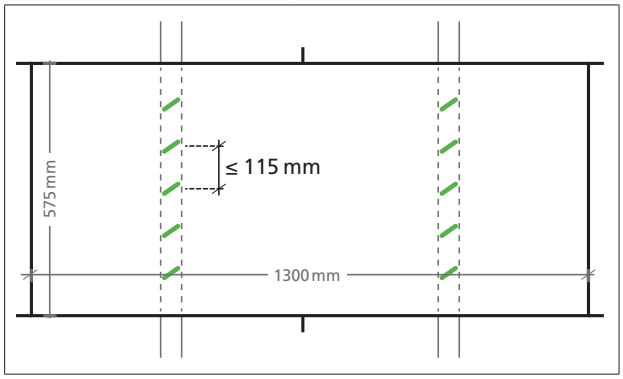


STEICO*protect H*, STEICO*protect M*, STEICO*protect M dry*, STEICO*protect H dry*	
Wind pressure w_e	up to -1,60 kN/m²
Number	≥ 6 pieces/m²

Max. dowel spacing	250 mm
Edge distance	≥ 50 mm

Wood fibre insulation boards - Processing on a wood substrate

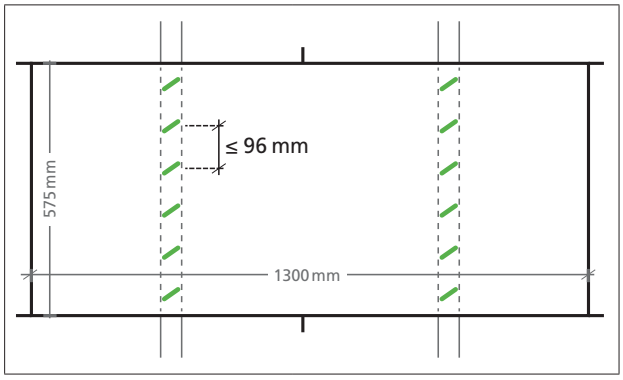
Fastening with stainless steel broad back clamps
(Axial dimension of the wooden stand 62,5 cm)



STEICO*protect H*	
Wind pressure w_e	up to -1,00 kN/m²
Number	≥ 12 pieces/m²

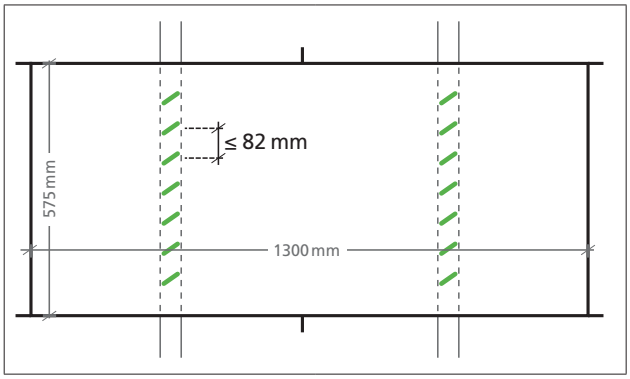
STEICO*protect H dry*	
Wind pressure w_e	up to -1,60 kN/m²
Number	≥ 10 pieces/m²

Max. Clamp spacing	150 mm (STEICO*protect H*, STEICO*protect H dry*)
Edge distance	20 - 50 mm

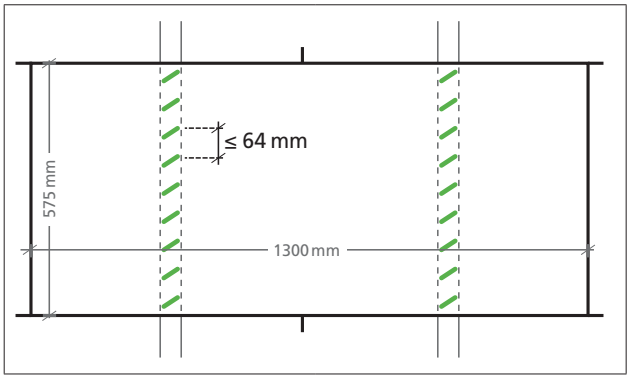


STEICO*protect H*	
Wind pressure w_e	up to -1,60 kN/m²
Number	≥ 16 pieces/m²

Max. Clamp spacing	150 mm (STEICO*protect H*)
Edge distance	20 - 50 mm



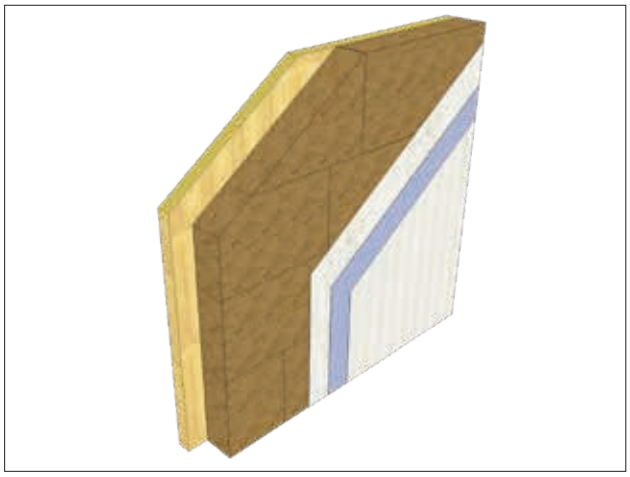
STEICO*protect M*, STEICO*protect M dry*	
Wind pressure w_e	up to -1,00 kN/m²
Number	≥ 17 Stück/m²
Max. Clamp spacing	90 mm
Edge distance	20 - 50 mm



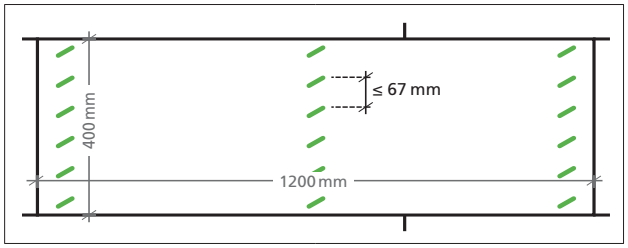
STEICO*protect M*, STEICO*protect M dry*	
Wind pressure w_e	up to -1,60 kN/m²
Number	≥ 25 Stück/m²
Max. Clamp spacing	90 mm
Edge distance	20-50 mm

MOUNTING ON SOLID, EXTENSIVE WOODEN SUBSTRATES

A uniform pattern of the fastening means, the maximum permissible vertical distance and sufficient fastening of at least the vertical board edges must be ensured.



Fastening with stainless steel wide back clamps

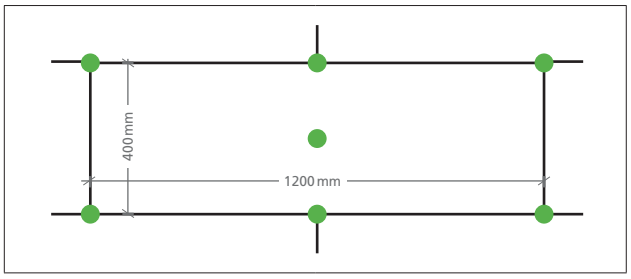


STEICO*protect L dry*	
Wind pressure w_e	up to -1,60 kN/m²
Number	≥ 34 pieces/m²
Max. Clamp spacing	70 mm
Edge distance	20-50 mm

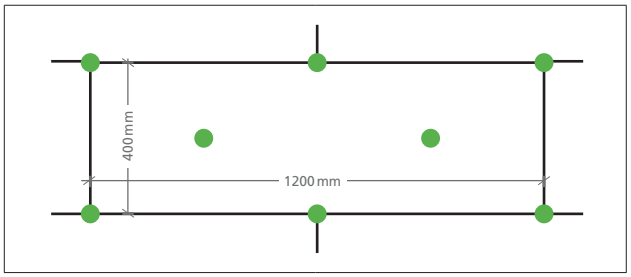
STEICO*protect H*, STEICO*protect H dry*, STEICO*protect M*, STEICO*protect M dry*	
Wind pressure w_e	up to -1,60 kN/m²

Compare mounting diagrams on page 31

Fixing with EJOTHERM STR H screw anchor

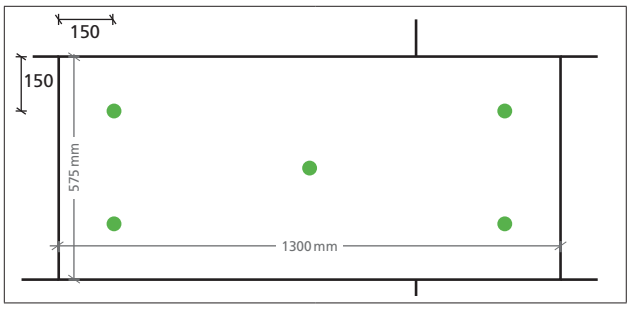


STEICO*protect L dry*	
Wind pressure w_e	up to -1,00 kN/m²
Number	6,3 pieces/m²



STEICO*protect L dry*	
Wind pressure w_e	up to -1,60 kN/m²
Number	8,3 pieces/m²

Fixing with EJOTHERM STR H screw anchorl



STEICO*protect H*, STEICO*protect H dry*, STEICO*protect M*, STEICO*protect M dry*	
Wind pressure w_e	up to -1,60 kN/m²
Number	≥ 6 pieces/m²

| WINDOW AREA WITH STEICO*fix*

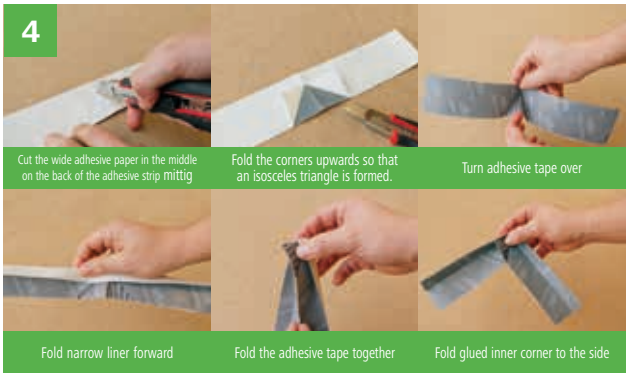
This sensitive component connection must be carried out with the greatest possible care and suitable materials. Since several trades (assembly of the panels, rendering company, window manufacturer, possibly sun protection specialist) are involved in this connection, careful planning involving all trades involved is essential in order to guarantee permanent safety.

The wood fibre insulation wedge STEICO*fix* acts as a second water-bearing layer and prevents unforeseen moisture penetration in the area of the window sill from damaging the ETICS and the layers behind it. The solution is great because familiar and easy-to-process materials are used

Attachment of STEICO*multi UDB* (diffusion-open membrane) as temporary weather protection until window installation.

The windows are installed on the membrane. Before STEICO*fix* is installed, the sheet is cut back "half-moon-shaped" (see Fig. 5).

The STEICO*multi tape* F adhesive strips are then attached to the insulation wedge in such a way that a three-sided "trough" is formed



To form the corners, the adhesive strips are cut to double the width of the insulation wedge. Then follow the steps described above.

STEICO*multi fill* adhesive beads are used to secure the insulation wedge against lifting off, e ≤ 30 cm.

Installation of the STEICO*fix* insulation wedge.
TIP: Fold back release paper, it can be removed more easily later.

The protruding flap of the laminated underlay is glued to the drip edge of the parapet profile using STEICO*multi fill*.

Insert the STEICO*fix* insulation wedge into the reveal, remove the remaining adhesive tape liner and press on the STEICO*multi tape* F adhesive tape.

Application of STEICO*multi fill* adhesive beads e ≤ 30 cm for the elastic fixing of the windowsill.

For a secure render connection, an attic profile is installed below the STEICO*fix* wood fibre insulation wedge (stainless steel screws or clamps in the wood fibre insulation board).

Installation of windowsill. TIP: The rear sheet metal interlocking is located in the matching window groove, the front one has a distance of ≥ 3 cm to the render facade

12

Installation of the reveal board. Protection against driving rain by applying joint sealing tapes to the front and end edges.

13

Application of STEICO*multi fill* adhesive beads into the wooden frame construction to ensure a secure hold of the reveal board.

14

Inserting the reveal board flush with the outer edge of the ETICS façade TIP: If necessary, plan for window frame widening.

15

Fixation of the reveal board for undisturbed hardening of STEICO*multi fill* by means of wide back clamps or stainless steel screws.

16

Attachment of a suitable rendering strip for safe render termination and continuation of ETICS work.

STEICO Tube

The STEICO*fix* manual is also available as Video.

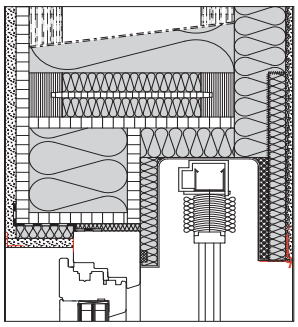
| ROLLER SHUTTERS / EXTERNAL BLINDS

Free roller shutter / external blind box

The STEICO wood fiber insulation board is backed with a wood material board to which the thermal insulation composite system is attached. The thickness of STEICO*protect* / STEICO*protect dry* is the same for wood-based boards. to reduce the thickness of the wood-based board. The insulation of the box should be at least 40 mm. The fastening consists of a glued joint. (STEICO*multi fill* see following sketch) and mechanical fixation with EJOTHERM STR H screw dowels or wide back clamps. The junction must be grinded. If the fasteners stand through the wood-based board, they are then cut back. In the case of very wide-span window hinges, the lower edge of the wood-based board can be reinforced by a metal angle or rail.

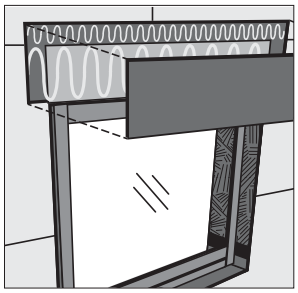
Integrated roller shutter/external blind box

If the box is permanently installed, STEICO wood fiber insulation boards can be attached directly to the box. This fastening is carried out with STEICO*multi fill*.



see construction detail p. 59

If the box protrudes into the ETICS insulation level, the cover plate of the box (at least 40 mm thick) is selected to be 10 cm larger on all sides than the box and a corresponding step seam is produced for the insulation boards in the facade surface. For wet boards this can be done by sawing in and removing the first 2 insulation layers, for dry boards by milling out accordingly



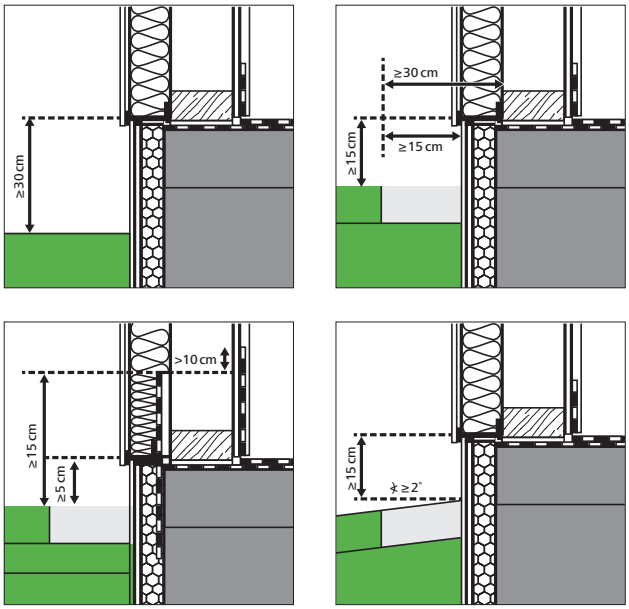
The cover plate (at least 40 mm thick) is then glued with STEICO*multi fill* with the actual ETICS and the roller shutter/blind box. A mechanical fixing with EJO THERM STR H screw anchors or wide back clamps must then be carried out. The junctions must be grinded

.

| SPLASH-WATER-ENDANGERED AREAS

The first 30 cm above the ground at base connections are known to be the splash water area. In addition to this, wall surfaces in the connection area of terraces, flat roofs, canopies and dormer walls are also endangered by splash water. In these areas, moisture-resistant base insulation boards are to be used, which are available in the range of the respective render manufacturer. These must be backed by moisture-resistant material boards (cement-bonded boards such as Fermacell Powerpanel HD or Knauf Aquapanel).

In the case of splash water-reducing substrates, such as a gravel strip (grain size 16/32, width 30 cm) or permeable terrace cladding (rust), the height of the splash water area can be reduced to 150 mm. Direct laying of dense building materials such as paving stones on STEICO wood fiber insulation board sis not permitted. Self-adhesive bitumen membranes (e.g. Dörken Delta-Thene or PCI Pecithene) have proved their worth as waterproofing in the base area).



See also the detail catalogue in the second part of these processing instructions Verarbeitungshinweise

Wood fibre insulation boards - Processing on existing mineral subsoil

| LAYING

Fixing of the wood fiber insulation boards in the base area

If no perimeter insulation is available yet, the first board layer can be placed on a temporary lath or squared timber anchored to the mineral substrate. After the lath has been removed, a base profile can be fixed to the bottom of the wood fiber insulation board with STEICO*multi fill* or a double-sided adhesive tape, and the perimeter insulation board can then be connected with an appropriate tape.

Alternatively, the first layer of the wood fiber insulation boards can also be placed on an angled rail, which is fastened to the mineral substrate with impact dowels. The rest of the procedure is as described above.

Attach angle rail

If no perimeter insulation is provided in the base area, a thin plastic or sheet metal profile may have to be glued on as a back cover, depending on the panel thickness.

If a horizontally aligned and flat perimeter insulation is already available, the first layer of the wood fiber insulation boards can be placed on it. Before the render baseboard is placed on the perimeter insulation board, a corresponding compri- band must be glued onto it. The base profile must then be placed on this.

Bonding of the render baseboards

The STEICO*protect L dry* render baseboards must be bonded to the substrate with the mineral STEICO*secure* Base adhesive and reinforcing mortar and additionally fastened with EJOTHERM STR U 2G screw anchors.

Full-surface bonding *(recommendation)*

The STEICO*secure* Base adhesive and reinforcing mortar is first applied to the entire surface as a thin layer to the back of the wood fiber insulation board using a notched trowel and massaged in to improve adhesion.

Glue the insulation board to a flat surface with full-surface bonding

Immediately afterwards, the final quantity of adhesive required is applied wet-on-wet with a 15 mm * 15 mm trowel and the entire surface is toothed off. The boards are then pressed against the wall.

In this way, irregularities in the subsoil of up to 3 mm can be levelled out.

Bonding using the dot and bead method

The STEICO*secure* Base adhesive and reinforcing mortar is first applied to the entire surface as a thin layer to the back of the render baseboard using a notched trowel and massaged in to improve adhesion.

Adhesion of insulation boards on uneven surfaces using the point and bead method

Immediately afterwards, both adhesive dots and a circumferential adhesive edge are applied in the required amount of adhesive wet-on-wet using the so-called dot-bead process. The amount of adhesive should be at least 40 %
The boards are then flattened, pressed and pressed against the wall.
In this way, unevenness in the subsoil of up to 10 mm can be compensated

Installation of the render baseboards

The small format, blunt boards (thickness lt AbZ 80 - 200 mm) are to be laid horizontally and precisely. When gluing blunt board formats on mineral substrates, corner must interlock.

Installation of small-format blunt slabs

For a sufficient contact pressure of the render base board

to the substrate (light tapping with a rubber hammer and fixing with a screw dowel EJOTHERM STR U 2G, if necessary with two screw anchors).

No adhesive mortar must get into the joints of the render baseboards. Any excess adhesive mortar that swells out must be removed.

Rear ventilation of the render baseboards or moisture ingress into the ETICS by convection must be prevented. For this purpose, a joint sealing tape 15/5 - 12 mm can be installed behind the first row of insulation boards.

In ETICS on mineral substrates, a second water-bearing level in the form of a STEICO*fix* insulating wedge must also be installed under the window sills. For a better adhesion of the adhesive tape STEICO*multi tape F* 20/40 mm, the render baseboard in the reveal can be primed with STEICO*multi fill*

.

FASTENING

In addition to bonding with the mineral STEICO*secure* Base adhesive and reinforcing mortar, the render baseboards must also be fastened with EJOTHERM STR U 2G screw anchors. The corresponding anchor pattern results from the respective wind load.

Anchoring must only be carried out once the STEICO*secure* Base adhesive and reinforcing mortar has set completely. The anchoring of the anchors in the substrate must be carried out in accordance with the building supervisory approval of the anchor manufacturer

.

The EJOTHERM STR U 2G screw anchors (see dowel pattern on following page) must be placed flush with the wall surface on the outside with the upper edge of the dowel. In the event that screw anchors have been driven in too deeply or screwed in, they must be levelled off before the reinforcing render is applied.

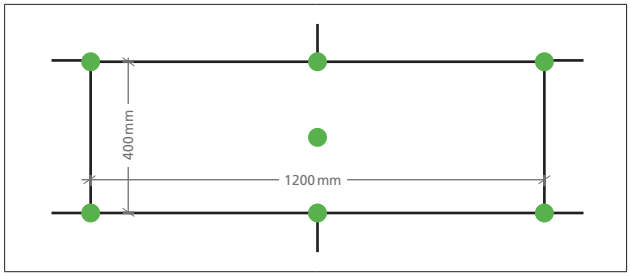
Finally, the screw openings of the screw plug EJOTHERM STR U 2G are closed with the special EJOTHERM STR insulating plug. This must be inserted flush with the surface in the anchor. (Order insulation plug as additional item)

Fixing with screw dowel
EJOTHERM STR U 2G

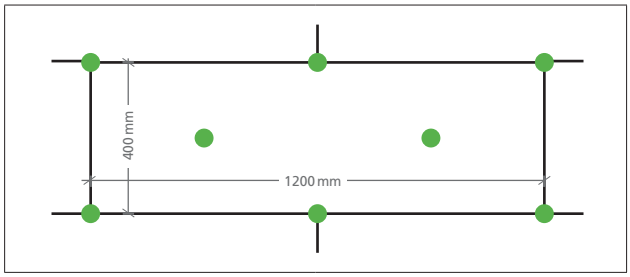
Minimum number of anchors/m² according to approval

Insulation thickness	Anchor load class	Wind pressure w_e (wind suction loads) according to DIN 1055-4 [kN/m²]		
[mm]	[kN/anchor)	-0,55	-1,00	-1,60
≥ 100	≥ 0,15	6	8	13

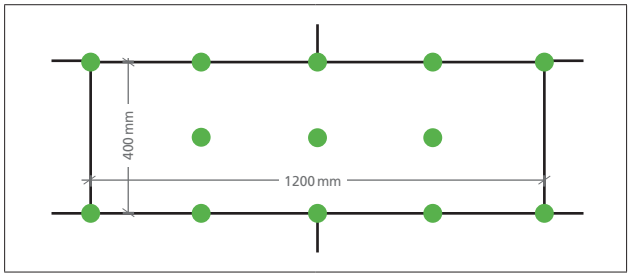
- Planel size 1200 mm * 400 mm
  (panel thickness 100 - 240 mm)



STEICO*protect L dry*	
Winde pressure w_e	up to -0,55 kN/m²
Number	6,3 pieces/m²



STEICO*protect L dry*	
Winde pressure w_e	up to -1,00 kN/m²
Number	8,3 pieces/m²



STEICO*protect L dry*	
Winde pressure w_e	up to -1,60 kN/m²
Number	14,58 pieces/m²

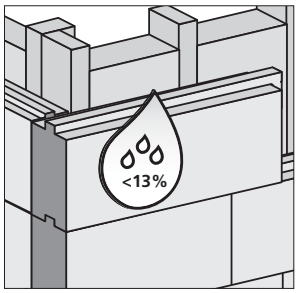
Processing render components

GENERAL

After completion of the ETICS system, the confirmation of the executing companies that the ETICS has been properly executed must be handed over to the client.

INSPECTION OF THE SUBSTRATE PRIOR TO THE RENDER ING WORK

Material moisture
Wood fibre insulation boards are delivered dry. On building sites, a moisture of the material is created, which allows an immediate render coating. In the case of prolonged damp weathering with driving rain, or also in periods of time with very high humidity, the material moisture of the not yet rendered wood fibre dam boards can increase significantly. Before rendering, the moisture content of the wood fibre insulation board must be 13 %.



It serves to avoid brown staining and to achieve dimensional stability. The check can be carried out with the wood measuring device GANN Hydromette BL H41. In the absence of a suitable measuring instrument, a PE foil test can help to provide orientation. A PE foil area of approx. 70 * 70 cm is used for this test
– airtight with an adhesive tape on the STEICO render base board. If condensation forms after approx. 24 hours, do not apply a coating.
The moisture content of wooden building components should not be greater than the value permissible according to the standard for later use
.

Panel surface
After fixing the STEICO render base boards, the finished surface must be checked for defects, panel joints and unevenness and repaired accordingly.
Height offsets in the wood fiber insulation boards can be reworked with a grinding board or an orbital grinder. Any grinding dust must be completely removed from the surface.

Surface inspection

Grinding board offsets

Grinding board offsets

System Components Product Overview

| WOOD FIBRE INSULATION BOARDS

STEICO protect
Holzfaser-Dämmplatte für WDVS

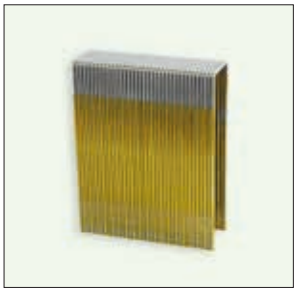
According to DIN EN 13171 Render -coatable wood fibre insulation board for exterior walls in wood construction.

Manufactured in wet process
Bulk density approx. 265 kg / m³ (type H) / approx. 230 kg / m³ (type M) Nominal value Thermal conductivity λD [W/ (m*K)] 0.048 (Type H) / 0.046 (Type M

STEICO protect dry
Holzfaser-Dämmplatte für WDVS

- According to DIN EN 13171 render -coatable wood fibre insulation board for exterior walls in wood construction with tongue and groove.
- According to DIN EN 13171 render coatable wood fibre insulation board for Z-33.43.-1582 thermal insulation composite system with wood fibre insulation boards for application on mineral substrates in existing buildings.

Manufactured in dry process
Bulk density approx. 180 kg / m³ (type H) / approx. 140 kg / m³ (type M) / approx. 110 kg / m³ (type L) Nominal value Thermal conductivity λD [W/(m*K)] 0.043 (Type H), 0.041 (Type M), 0.037 (Type L



STEICO duo
Kombinierte Unterdeck- und Putzträgerplatte

- Wood fibre insulation board for exterior walls in wood construction with tongue and groove, coatable with render according to DIN EN 13171
- Heat-insulating sub-cover panels
- Wall construction panel behind curtain-type facades

Manufactured in wet process
density approx. 265 kg / m³
Nominal value Thermal conductivity λD [W/ (m*K)] 0.048

STEICO duo dry
Kombinierte Unterdeck- und Putzträgerplatte

- According to DIN EN 13171 render -coatable wood fibre insulation board for exterior walls in wood construction with tongue and groove
- Heat-insulating sub-cover panels
- Wall construction panel behind curtain-type facades

Manufactured in dry process
Bulk density approx. 180 kg / m³

Nominal value Thermal conductivity λD [W/(m*K)] 0.043

♦ • φορ φιλλ–συρφαχε βονδινγ ον ετσεν συρφαχεσ

STEICO*multi fill*

Pressure-resistant joint filler for finishing joints STEICO*secure* ETICS and for bonding of STEICO*protect* / STEICO*protect dry* wood fibre insulation boards with various materials.

310 ml cartridge (470 g)
12 pcs. /carton

STEICO*multi primer*

Primer for adhesion improvement of bonding on porous substrates.

Plastic bottle of 1000 g
6 bottles / carton

Joint sealing tape

SSelf-adhesive, pre-compressed joint sealing tape with impregnated side surface for driving rain-tight sealing of connection joints (fully impregnated to DIN 18542 BG1) for STEICO*secure* ETICS.

Type 15 / 2-5
10 rolls = 180 m cardboard box
Width 15 mm
Colour: Anthracite

Type 15 / 5-12
10 rolls = 90 m cardboard box
Width 15 mm
Colour: Anthracite

STEICO*multi tape F*

Joint and connection bonding of STEICO wood fibre insulation boards in combination with STEICO*multi primer* and for connection bonding of STEICO*fix* wood fibre insulation wedge

Rollers 25 m
width 40/20 mm, 10 rolls/carton
width 60 mm, 10 rolls/carton
width 100 mm, 6 rolls/carton
width 150 mm, 4 rolls/carton

STEICO*fix*

Hydrophobised wood fibre insulation board as an insulating wedge for windowsills with a functional membrane. For use as a second water-bearing level under window sills.

Length: 1,350 mm thick/throat: 20/100, 20/140, 20/180, 25/200, 30/260 mm

25 pcs / package

Grinding boardt

Grinding board with asymmetrical handle for optimum thickness calibration of STEICO*protect* / STEICO*protect dry* wood fibre insulation boards.

Checklist “Transfer of foundation ready for rendering" for the STEICO*secure* ETICS

Object identification data

1. Address:

2. Client:

3. Planner:

4. Timber construction company:

5.Contractor liable for rendering:

6. Date/period of building construction:

7. Date/period of scheduled rendering:

Observe the period of exposure to free outside effects up to 4 weeks!

8. Comments:

Construction description

1. Installation level, if applicable:

2. Plane of air tightness:

☐ Taped:

3. Supporting structure:

wooden frame construction ☐

solid wood elements ☐

Other ☐

Grid wooden frame construction: _____ cm

4. Compartment depth, thickness of the element _____ cm

5. Compart insulation:

6. Air-injected insulation already installed:

☐ yes ☐ no

if NO, do not use render

7. External planking if necessary:

Render baseboard STEICO*protect* / STEICO*protect dry*

1. Board type:

STEICO*protect* ☐ *H* ☐ *H dry* ☐ *M* ☐ *M dry* ☐ *L dry*

☐ STEICO*duo* ☐ STEICO*duo dry*

2. Board thickness: _____ mm

3. Board format: _____ mm * _____ mm

☐ blunt ☐ tongue & groove

4. Pallet feeder documented:

☐ yes ☐ no

5. Date of board assembly:

Render system

1. Reinforcing compound:

Please observe a minimum layer thickness of 5 mm!!!

2. Reinforcement fabric:

3. Any intermediate coating

4. Finish render:

5. Paint coat if necessary:

"Checklist" Processing render base board

1. The substrate (solid construction timber/special area/solid wood elements) was tested for dryness prior to assembly or designated as dry:

☐ yes ☐ no

2. Basic processing was carried out according to processing recommendations:

☐ yes ☐ no

if no, essential deviation:

3. All butt joints > 2 mm are finished with STEICO*multi fill*?

☐ yes ☐ no

if no, position of the joints to be reworked:

Checklist "Handover of render able substrate" for STEICO wood fibre facade insulation

4. All butt joints > 5 mm are filled with wood fibre insulation and permanently fixed with system-compliant fasteners or STEICO*multi fill*?

☐ yes ☐ no

if no, position of the joints to be reworked:

5. All joint areas are thickness calibrated by grinding?

☐ yes ☐ no

if no, position of the joint areas to be reworked:

6. Any imperfections in the surface?

☐ yes ☐ no

if no, position of the areas to be reworked:

7. Loose fibres on the surface to be rendered were removed with a vacuum or oil-free compressed air and the surface cleaned?

☐ yes ☐ no

8. Vertical panel joints with offset (min. 30 cm)?

☐ yes ☐ no

If no, determine post-processing:

9. Splash water areas are considered by plinth insulation?

☐ yes ☐ no

if no, consider protection by render coating:

if yes, is the plinth insulation arranged according to the processing instructions?

☐ yes ☐ no

if no, describe the repair:

10. Structure sealing at least up to 30cm and ground level?

☐ yes ☐ no

if no, describe the repair:

11. All component connections are permanently wind and driving rain proof, e.g. by arrangement of a pre-compressed joint sealing tape?

☐ yes ☐ no

if no, describe the repair:

"Checklist" Connecting means

1. Connecting means usedl

☐ Wide back clamps, stainless (stainless steel)

☐ EJOTHERM STR H screw dowels

☐ EJOTHERM STR U 2G screw anchor

Length: Anchorage depth:

for clamps, clamps arrangement:

☐ cross ☐ horizontally

2. Sufficient number of fasteners according to directive/ approval?

☐ yes ☐ no

if no, describe the repair:

3. Connecting mean set flush with the surface (EJOTHERM STR H screw dowel) or inserted close to the surface, i.e. max. 2 mm deep (wide back clamps)?

☐ yes ☐ no

if no, describe the repair:

"Checklist" Connection details

1. All windowsill connections are made according to the processing guidelines?

In particular, permanent water supply into the on-board profile and driving rain-proof connection with suitable joint sealing tape ensured?

Sufficient distance between the wood fibre insulation board in the reveal and the front edge of the edge profile for subsequent rendering?

☐ yes ☐ no

if no, describe the repair:

2. Floor joint resistant to settling according to processing guidelines and STEICO detail catalogue to avoid creases?

☐ yes ☐ no

if no, describe the repair:

3. Method of closing (finishing) the system at the bottom?

☐ by base rail with push-on profile

☐ base edge profile subsequently processed by the rendering company according to guidelines

Special features:

4. Are any roller shutter guide rails designed to safely channel water ingress into the vehicle profile?

☐ yes ☐ no ☐ non-existent

if no, describe the repair/connection:

5. Are any walls that rise up to the roof surface (including dormer walls) permanently and tightly connected with a sheet metal profile?

☐ yes ☐ no ☐ non-existent

if no, describe connection:

Handover of trades

Before rendering the surfaces, the finishing work listed above must be carried out if necessary. The surfaces must be rendered in suitable weather conditions.

Special attention must be paid to an adequate layer thickness. Only sufficiently dry STEICO wood fiber insulation boards surfaces may be rendered; the material moisture must be checked directly before applying the render (material moisture max. 13 %).

A PE foil test - surface approx. 70 * 70 cm - can be carried out in the absence of a suitable measuring device. If condensation forms after approx. 24 hours, do not apply a coating.

The wall surfaces to be rendered were thoroughly examined and any improvements are listed in this document.

After their implementation

☐ can be rendered as per guidelines and state of the art

☐ a new construction site appointment is required for the purpose of inspection and handover of the trades.

Date:

for the timber construction company:

for rendering company

for the planning office

Further system partners

| FURTHER SYSTEM PARTNERS WITH GENERAL CONSTRUCTION SUPERVISION APPROVALS / GENERAL DESIGN TYPE APPROVAL FOR STEICO RENDER BASE BOARDS

- AbZ Z-33.47-1171 ETICS with wood fibre insulation boards for use on exterior walls of wood construction type
  Schwenk ETICS "System Natura"

  board type: STEICO*protect H* / STEICO*protect M*
  STEICO*protect H dry* / STEICO*protect M dry* / STEICO*protect L dry*

- AbZ / General type approval Z-33.43-1580 ETICS with dowelled and glued wood fibre insulation boards on mineral substrates
  „**System Natura**"

  board type: STEICO*protect L dry*

SCHWENK Putztechnik
Eine Marke der quick-mix Gruppe

- AbZ Z- 33.47-1087 ETICS with wood fibre insulation boards for use on exterior walls in wood construction „**Baumit ÖkoFassade**"

  board type: STEICO*protect H* / STEICO*protect M*
  STEICO*protect M dry*

baumit.com

- AbZ / General design type approval Z-33.47-1624 "Sakret WDVS Holzfaser Holzbau" Composite thermal insulation system in wooden design

  board type: STEICO*protect H*
  STEICO*protect M dry* / STEICO*protect L dry*

RYGOL SAKRET

- AbZ Z-33.47-1258 WDVS for use on exterior walls in wooden construction „**Knauf WARM-WAND Natur S im Holzbau"**

  board type: STEICO*protect H* / STEICO*protect M*

KNAUF

- AbZ Z-33.47-1657 WDVS for application on external walls in wooden construction „**SCHWEPA HFD-System**"

  board type: STEICO*protect M*

SCHWEPA
Schwarzwälder Edelputzwerk GmbH

- AbZ Z-33.47-1503 „**FIXIT WF – H System**" ETICS on external walls in wooden construction type

  board type: STEICO*protect H*

HASIT
Natürlich besser bauen

A comprehensive list can be found on our homepage, e.g. under the product STEICO*protect*: "Overview of ETICS approvals for wooden construction"

| OTHER SYSTEM PARTNERS WITH ETA FOR STEICO RENDER BASE BOARDS

- ETICS „baumit nature" (wooden construction) ETA-09/0305, ETA-11/0130, ETA-13/1019

  Plate type: STEICO*protect M dry*

- ETICS „**baumit nature Massiv**" (solid constr.) TA-16/0242

  plate type: STEICO*protect M dry*

baumit.com

A comprehensive list can be found on our homepage, e.g. under the product STEICO*protect*: "Overview of ETICS approvals for masonry". "Übersicht WDVS-Zulassungen für Mauerwerk".

Stichwortverzeichnis

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Papier
FSC® C003578

Gedruckt auf FSC®-zertifiziertem Papier | Stand 08/2018. Es gilt die aktuelle Auflage. Irrtum vorbehalten.