EN

# Implio® P

TIGHT. CROSS-TRADE. CERTIFIED.

# THE CERTIFIED COMPLETE WINDOW INTEGRATION SYSTEM

## With choice of exterior blind housing or roller shutter housing


Trades

*A complete system solution from*

GUTEX®
NATURALLY MADE FROM WOOD

# INHALT

## Implio® Window integration system

If you really desire to insulate with wood fibre, you'll choose GUTEX Implio® systems for your doors and windows. Carefully designed with the input of industry and trade partners, these premium solutions address the typical problems to effectively protecting buildings from damage whilst significantly cutting labour costs.

You, too, can benefit from the many advantages. Whether new building, refurbishment, render-coated facade or rainscreen, Implio® is the solution for just about any application, including those with window ledges of various materials, such as metal, natural or artificial rock.

**ADVANTAGES**

- Certified system performance
- Double the protection
- Wind and driving-rain tight
- Keeps structures safe from water damage
- Cross-trade solution, quick and easy to install

*i* Tested and certified by ift-Rosenheim, a certified German institute, as wind and driving rain tight.

# 1. 1. THE SYSTEM SOLUTION

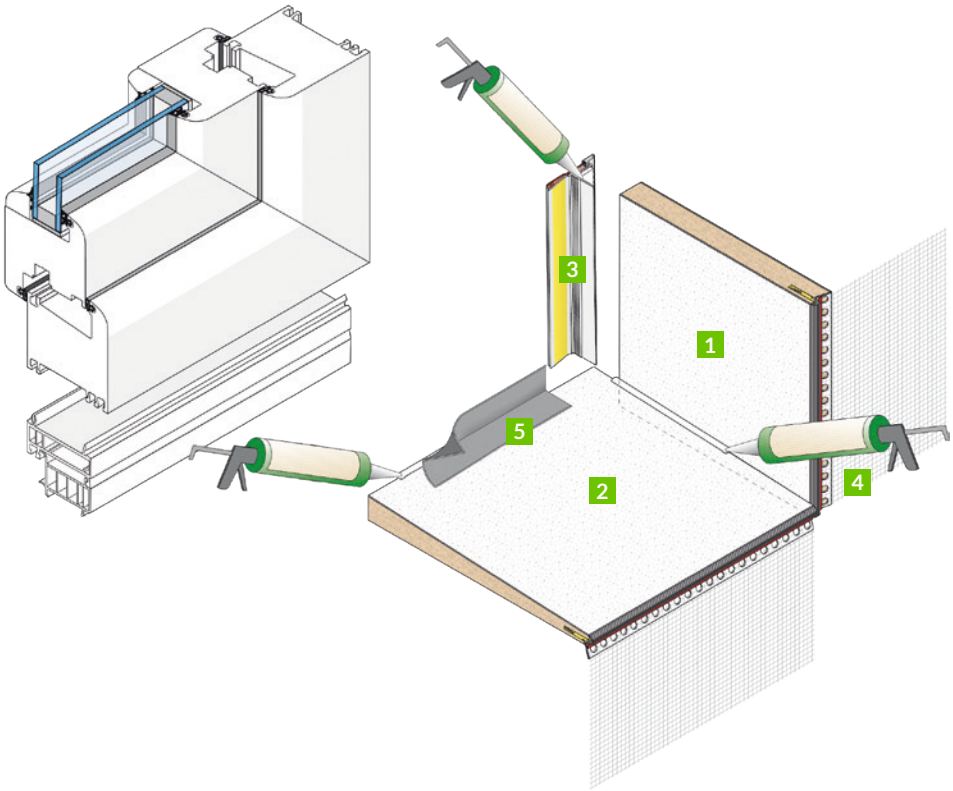
## 1.1. System description and applications

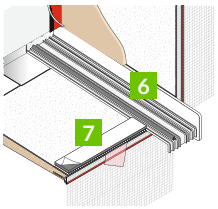
Implio® P is a certified complete system that is primarily for render facades. Window integration is particularly complex and critical in ETICS. Typically, windows are a building element where up to four different trades play a role, including window contractors, architectural blinds installers, plasterers, tinsmiths or masons. Implio® P, a wood-fibre based system that may include architectural blinds, their housings, and reveal/jamb and ledge insulation, provides a dependable, effective doubled layer of weather protection. If you want an intricately integrating complete system that performs optimally, GUTEX Implio® P is your choice.

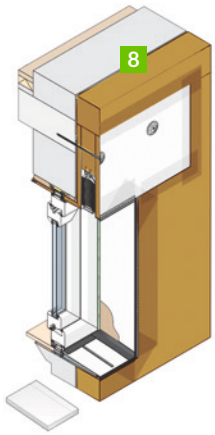
**ADVANTAGES**

- Certified complete system
- Especially suitable for ETICS
- Thanks to factory-prepped, sized-to-order wood fibre insulation boards, you can accomplish four steps in one: board installation, reveal/jamb reinforcement, beads and window bead installation
- Ideal for even high insulation thickness (refurbishment)

## 1.2. Main components



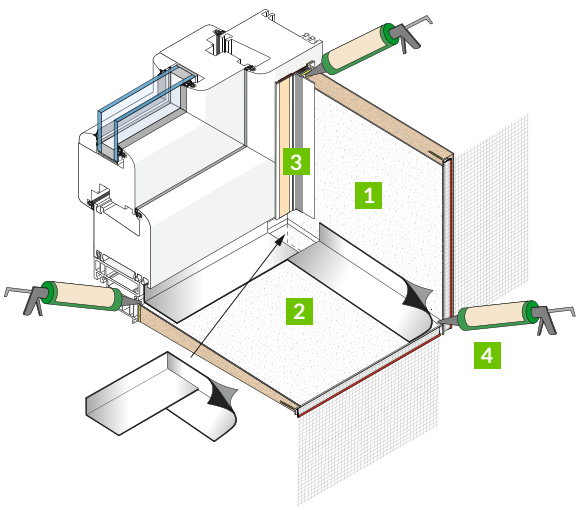



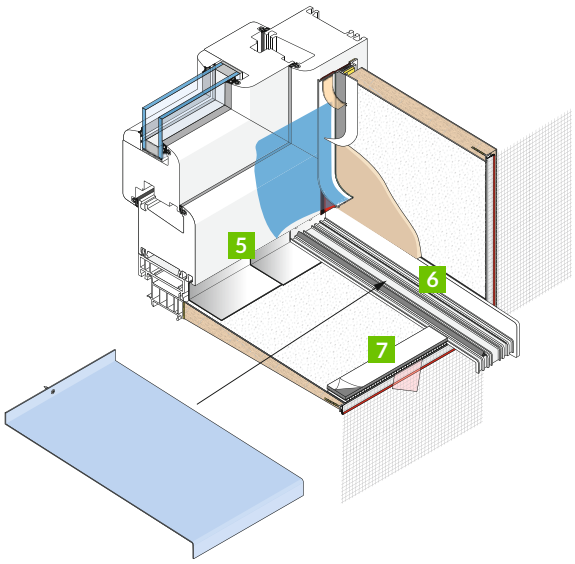

1 GUTEX Implio® Laibungsplatte (reveal/jamb insulation)
2 GUTEX Implio® Keilplatte (ledge insulation)
3 GUTEX Implio® Fensteranschlussprofil (weatherproofing channel)
4 GUTEX Implio® Dichtkleber (caulking)
5 GUTEX Implio® P Fensterbankdichtband und -dichtecke (window ledge tape seal and corner)
6 GUTEX Implio® Bordprofil (ledge cover corner underlay)
GUTEX Implio® Kunststoffwinkel (plastic angle underlay)
7 If required, GUTEX Implio® Hinterlüftungsprofil (vent channel)
8 If required, GUTEX Implio® P Raffstorekasten (exterior blind housing)
with Raffstorekastenverbinder (sunshade housing connector), if applicable

› GUTEX Implio® P Rolladenkasten (sunshade housing), if applicable

## 1.3. Standard assembly

The Implio® P system always consists of Keilplatte (ledge insulation), Laibungsplatte (reveal/jamb insulation), Fensteranschlussprofil (window weatherproofing channel), Fensterbankdichtband und –ecke (window ledge tape seal and corners). For the installation of metal, natural or artificial stone window ledge, use either Implio® Bordprofil (metal underlays) or Implio® Kunststoffwinkel (plastic underlays). In addition, you have the optional components of exterior blind and roller shutter housings as well as Implio® Hinterlüftungsprofil (vent channel) at your disposal.




1 GUTEX Implio® Laibungsplatte (reveal/jamb insulation)
2 GUTEX Implio® Keilplatte (ledge insulation)
3 GUTEX Implio® P Fensteranschlussprofil (weatherproofing channel)
4 GUTEX Implio® Dichtkleber (caulking)
5 expandingGUTEX Implio® P Fensterbankdichtband, -Ecke (window ledge tape seal)
6 GUTEX Implio® Bordprofil (ledge cover corner underlay) or Kunststoffwinkel (plastic angle)
7 GUTEX Implio® Hinterlüftungsprofil (vent channel), if applicable

- GUTEX Implio® P Raffstorekasten (exterior blinds housing), if applicable
  with Raffstorekastenverbinder (exterior blinds housing connector), if applicable
- If required, GUTEX Implio® P Rolladenkasten (roller shutter housing)

# 2. PLANNING

## 2.1. Required dimensions and substrate conditions

The window must be assembled with 90° corners. Custom details for retrofit windows are possible, too. The four reveal/jamb side surfaces must be uniformly smooth and suitable to accommodate render, and if they are masonry, it is usually best to apply first a trowel-smoothed coat. When measuring the width of the window frame, you must figure a surplus of at least 30 mm.The height under the window must be a minimum of 65 mm. If you're using a 40-mm thick Keilplatte (ledge insulation), the height here must be 75 mm. Consult the table below for further information.

| **Required under window frame heights** | | |
|---|---|---|
| **Thickness of the Keilplatte (ledge insulation) back edge** | 30 mm thick | 40 mm thick |
| **Maximum ledge insulation depth at 5° pitch** | 229 mm | 343 mm |
| **Minimum under window frame height** | Thickness = 65 - 70 mm | Thickness = 75 - 80 mm |

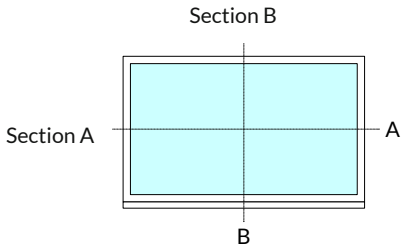
*Trowel-smoothed surfaces with GUTEX Durio facade installed over an old facade*

The excess space around the window frame to allow window installation should not exceed 10 mm. To ensure that the GUTEX Implio® Fensteranschlussprofil (weatherproofing channel) provides long-lasting reliable performance, it is necessary to secure windows, doors and similar elements in accordance with current standards to prevent undesired movement. Relevant national and industry guidelines and regulations stipulated by the applicable trade associations apply, such as those for woodworking, plastics, metal and glass.

## 2.2. GUTEX Implio® P Laibungsplatte (reveal/jamb insulation)

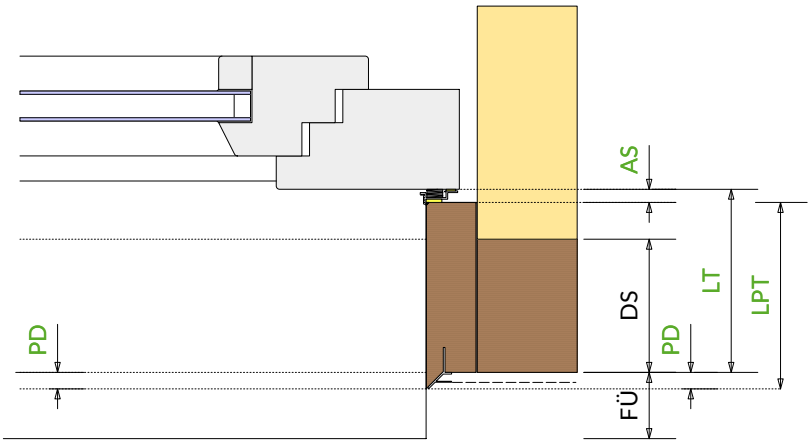
Options: Reveal/jamb insulation is available in 20-mm, 30-mm and 40-mm thickness. The depth is 300 mm, but greater depths are possible on request. Lengths of up to 3,000 mm come in single sections. To accomodate greater lengths, we provide a 3,000 mm length plus additional pieces equalling the required total length.

Use GUTEX Implio® P Fensteranschlussprofil (weatherproofing channel) for all board thicknesses uniformly throughout.




LT = Reveal/jamb depth (width)
FU = Window ledge overhang
DS = Insulation thickness
AS = Weatherproofing channel = 8 mm
PD = Render thickness
= Ledge insulation board overhang

Ordering depth
(ledge insulation board depth/width)
LPT = LT - AS + PD




*GUTEX Implio® P Laibungsplatte (reveal/jamb board) horizontal view window A - A*

### Dimensions

The Laibungsplatte (reveal/jamb insulation) order in the exact length and width required. Or you may order oversized boards and cut to required size (depth and length) on site.

### Determining required reveal/jamb board dimensions

- Length: Height of the opening minus 3 mm for the joint at the top
- Depth: LPT, opening depth minus thickness of Fensteranschlussprofil (8 mm), plus reinforcement coat thickness (usually the reveal insulation's render stop projects 6 mm beyond the facade)

### Determining required lintel insulation dimensions when using reveal/jamb insulation boards

- Length: Width of the opening minus the 2-mm joints on both sides (total = 4 mm)
- Depth: width of reveal/jamb insulation board

## 2.3. GUTEX Implio® Keilplatte (ledge insulation)

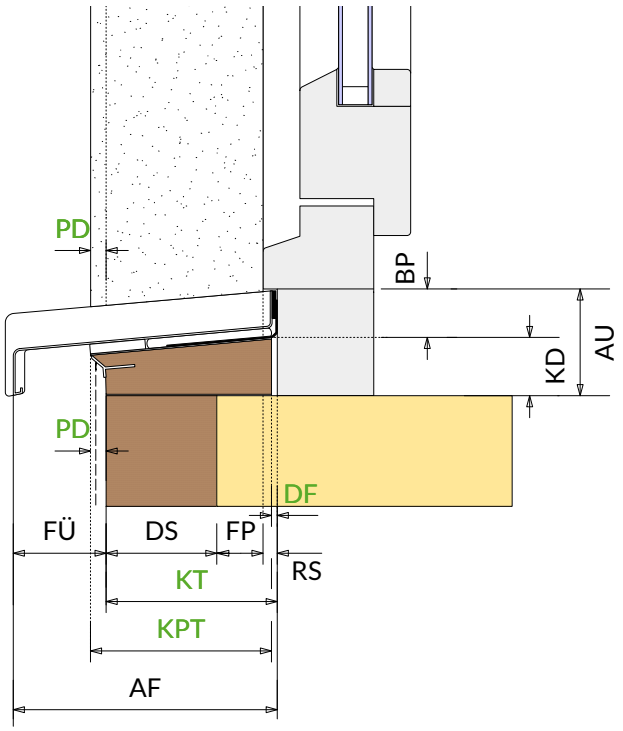
Options: Keilplatte (ledge insulation) come in 30-mm and 40-mm thickness. The depth is 300 mm, but greater depths are possible on request. Lengths of up to 3,000 mm come in single sections. To accomodate greater lengths, we provide a 3,000 mm length plus additional pieces equalling the required total length.

The ledge insulation tapers down with 5° pitch from the 30-mm or 40-mm edge adjacent to window frame. Since their minimum thickness at the front edge is 10 mm, their depth is limited. Depths exceeding 229 mm with Type 30 Keilplatte and depths exceeding 343 mm with Type 40 do not allow sufficient pitch (less than 5°), which means others (installer) must make accommodations to achieve the necessary pitch of 5°.

**Refer to the table for required substructure heights P. 7**

KT = Window ledge insulation depth/width = LT + RS
FU = Window ledge overhang
DS = Insulation thickness
FP = Window position
RS = Setback
AF = Window ledge width/depth
KD = Window ledge insulation thickness = 30 / 40 mm
BP = Ledge cover corner underlay height = 30 mm
AU = Distance to substructure
= KD + BP + 5 mm up to 10 mm refer to Table P. 7
DF = Sealed joint = 3 mm
PD = Render thickness
= Window ledge insulation overhang

Ordering width (window ledge width/depth)
KPT = KT - DF + PD




*GUTEX Implio® P Keilplatte (ledge insulation) vertical sectional view B - B*

### Dimensions

The Laibungsplatte (reveal/jamb insulation) orders in the exact length and width required. Or you may order oversized boards and cut to required size (depth and length) on site.

### Keilplatte (ledge insulation) dimensions

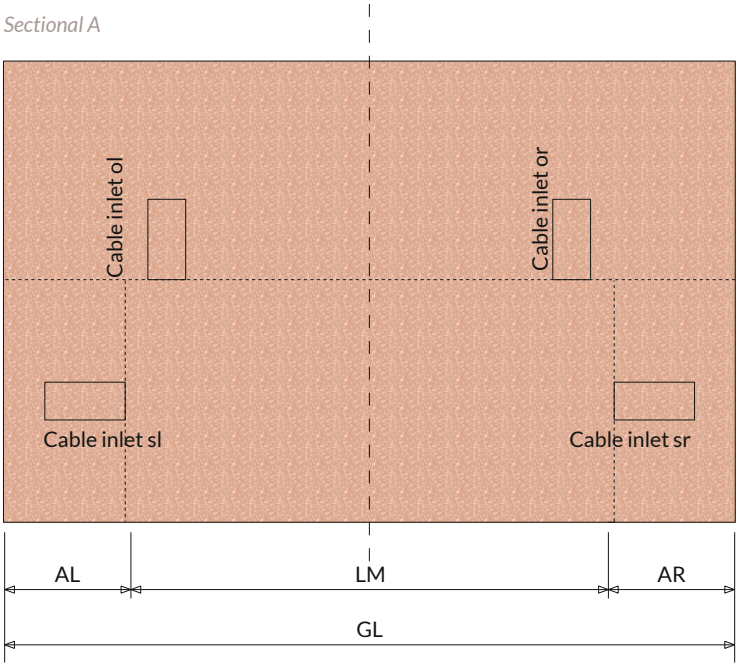
- Length: Width of the opening between reveal/jamb liner insulation minus the 3-mm joints on both sides (total = 6 mm).
- Depth: KPT, depth of rough opening minus 3 mm sealed joint behind additional thickness of reinforcement coat (usually 6 mm)

## 2.4. GUTEX Implio® P Raffstore- und Rollladenkasten (exterior blinds and roller shutter housings)

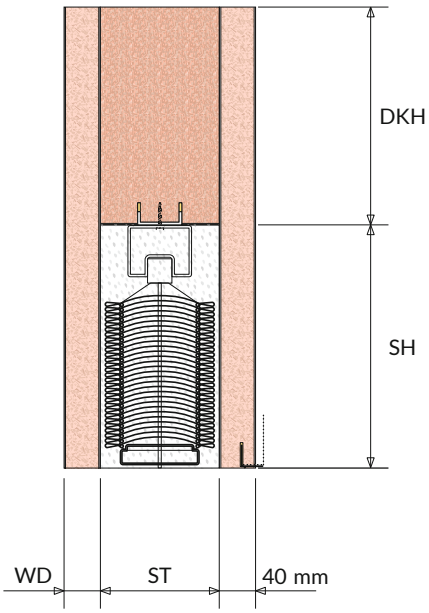
We manufacture the sunshade housings to your specifications. Please refer to the table for the minimum and fixed dimensions.

- For other dimensions to accommodate different rest widths, insulation core heights, wall insulation thickness, etc, please consult your sales agent.
- You may also special order to meet your specific design requirements, including corner elements, sunshade housing covers, etc.
- Total housing height is limited to 900 mm maximum. However, you should try to stay under 500 mm, as greater heights are heavy and harder to handle.

*Sectional A*




*Exterior face*



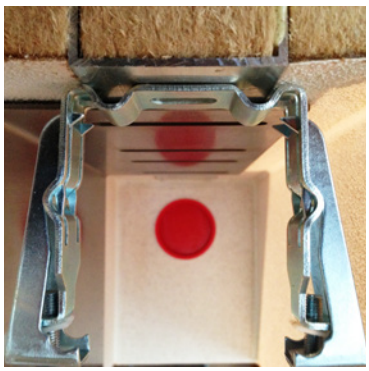

*Exterior blinds housing with wall-facing insulation*

GL = Total sunshade housing length (over 2500 mm comes in several sections)
AL = ETICS rests left (looking at unit from exterior), min. 100 mm, but better is 200 mm
AR = ETICS rests right (looking at unit from exterior), min. 100 mm, but better is 200 mm
WD = Wall-facing insulation board (min. 20 mm, better is 40 mm)
ST = Cavity depth
SH = Cavity height
DKH = Insulation core height (top housing thickness) min. 150 mm
LM = Distance between reveal/jamb boards

**NOTE**

We strongly recommend working closely with the sunshade manufacturer.
Recommended: for 80-mm slat width, order cavity depth (ST) of 120 m.

- Exterior blind housings are available with a maximum total height of 500 mm and maximum length of 2,500 mm. Higher housings may be ordered in lengths up to 2,000 mm. GUTEX provides the housings in longer lengths in multiple segments, butted together and secured with GUTEX Implio® P Raffstorekastenverbinder connectors.
- The housing's interior walls come in white, and do not require painting.
- You may request the housing in dark grey (close to RAL 7015).



- The exterior blind mounts bolt to the integral aluminium rail when you install the shade. GUTEX designed this configuration specifically to eliminate thermal bridges.

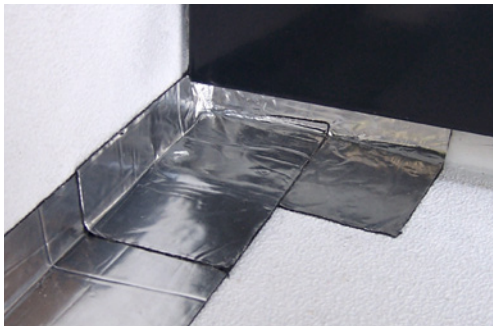
- For power-operated exterior blinds, you must drill a hole in a suitable place to provide entry of the power lead into the housing. The hole must be carefully sealed with caulking or an air- and water-tight seal, the latter available from GUTEX.

The Rollladenkästen (roller shutter) housings and the Raffstorekästen (exterior blind) housings have similar constructional designs. Further details are available in GUTEX Implio® P Rollladensystem product descriptions found in GUTEX documents and on the Web site.

**Refer to the GUTEX Implio® P Rollladen- und Raffstoresystem (roller shutter and exterior blinds) brochure**

## 2.5. Aluminium-clad wood windows

If you are installing aluminium-clad wood windows, make sure the seal takes place on the wood frame and not the metal cladding. Push the reveal/jamb insulation boards past the metal cladding until they butt up against the wood frame. This is possible only if the wood frame is wider than the metal cladding, which means a joint will be visible.

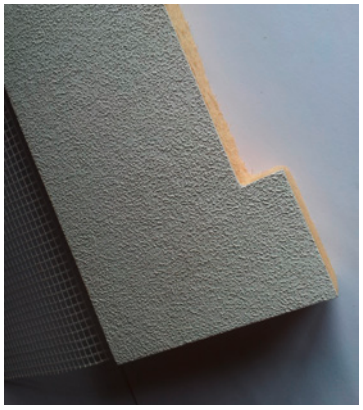


**The same applies for roller shutter tracks**
**Refer to Implio® P401 and P402 the GUTEX Implio® System overview broschure**

## 2.6. Options

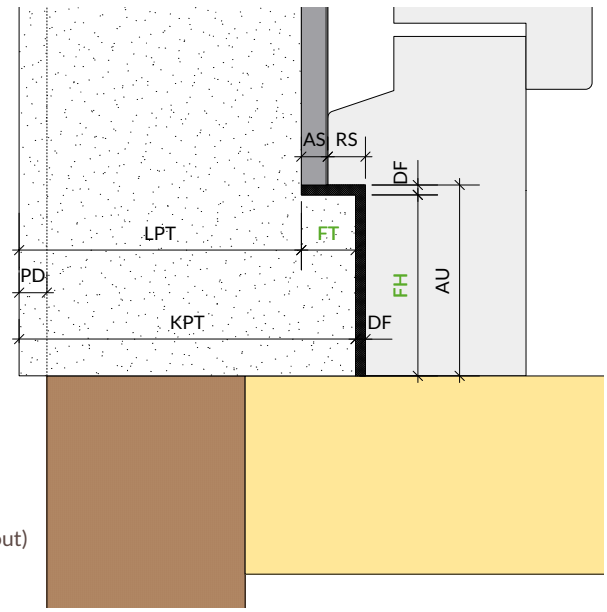
### 2.6.1. Reveal/jamb insulation boards with factory cut-out

Implio® P Laibungsplatten boards (reveal/jamb insulation) also order with a factory-made cut-out to facilitate your attempts to effectively seal the corners where windows, ledges and jambs come together. The cut-out creates a projection where the window frame is set back, eliminating the need to place an extra piece of insulation in the gap. You'll need to provide us with the individual dimensions (height and depth), allowing 3 mm to seal the joint adjacent to the window frame and 8 mm to seal the joint with the Fenster-anschlussprofils (weatherproofing channel).



AS = Weatherproofing = 8 mm
RS = Setback
DF = Sealed joint = 3 mm
PD = Render thickness
= Ledge insulation board overhang
FT = Cut-out depth = RS + AF - DF = RS + 5 mm
FH = Cut-out height = AU - DF = AU - 3 mm
AU = Distance to substructure
= KD + BP + 5 - 10 mm refer to table P. 7

Ordering depth (ledge insulation board depth)
LPT = LT - AS + PD
**Billing size** (Laibungsplatte (reveal/jamb insulation with cut-out)
KPT = LPT + FT




*GUTEX Implio® P Laibungsplatte (reveal/jamb insulation)) vertical sectional view B - B*

### 2.6.2. Printed installation indications

At your request, GUTEX can provide the boards with individual labels to simplify your work, such as project name, wall designation, side of building, e.g. with designation per street name, northeast, etc. We could also label them to correspond to designations found in the building plans. To minimise printing costs, assign openings with the same dimensions to a specific group indication.

### 2.6.3. Implio® P02

If you require, we can provide Implio® P02 reveal/jamb and ledge insulation for rainscreens. The reveal/jamb boards come in smooth black without channel bead for the joint to the render and the matching ledge insulation boards come in light grey to minimise heat caused by the sun. Adhere the exterior wall paper (moisture barrier, etc.) over the edges of the reveal/jamb and ledge insulation using a suitable joint tape that adheres to both the paper and the factory prepped jamb and ledge board surfaces. If exterior wall paper is not used, then you must cover the primed edges with a suitable joint tape.

**Refer to Implio® P101, P302 and P402 in the GUTEX Implio® System brochure overview**

# 3. INSTALLATION

**Required accessories**

- GUTEX Implio® Dichtkleber (caulking)
- If installing exterior blinds or roller shutters:
  - GUTEX Thermowall® Holzschrauben (wood screws) or GUTEX WDVS Thermoschraubdübel (thermally decoupled screw fasteners), depending on substrate
  - GUTEX Fugendichtband BG 1 (adhesive sealing strip) - optional
  - GUTEX Implio® P Raffstorekastenverbinder (housing connectors) - optional
  - If required, additional counter-sink wood screws

## 3.1. Prepping substrate

Always make sure that all substrates are level, smooth, dry and free of dust, oil and adhesion-inhibiting substances. If necessary, you may use a suitable cleaning medium that is commonly available. Perform a small adhesion test prior to beginning with the installation of the (Fensteranschluss-profil) weatherproofing channel.

Fill any existing mitred joints near the channel with GUTEX Implio® Dichtkleber caulking before continuing.

# 3.2. GUTEX Implio® P Raffstore- or Rollladenkasten (exterior blinds or roller shutter housing)

### 3.2.1. Rests and installation steps

- Install the system top down: first the exterior blinds housing (or lintel liner), the reveal/jamb insulation and finally the ledge insulation.

- The exterior blinds housing requires suitable rests on both ends. Provide a suitable opening with rests in the exterior wall insulation. Make sure to provide sufficient window frame insulation.

- It is possible to install the GUTEX Implio® P Raffstorekasten (exterior blinds housing) in the cavity after you have installed the exterior insulation. For best results, however, install the housing with the exterior insulation, in order to avoid open joints between the housing and the adjacent GUTEX Thermowall ®. Plan to do it this way especially if you are installing a power lead from the side.

### 3.2.2. Fastening

- Apply a meandering bead of GUTEX Implio® Dichtkleber to the backside of the GUTEX Implio® P Raffstorekasten (exterior blinds housing).

  For masonry substrates, we recommend coating the complete backside of the housing with GUTEX Klebe- und Spachtelputz (quantity approx. 6-7 kg/m²) ), or applying two large dabs in the middle of the board and a large bead of GUTEX Klebe- und Spachtelputz around the board's perimeter (min. 40% of the board's area).

- Apply a bead of caulking along the bottom edge of the housing's interior-facing insulation or adhere a section of GUTEX Fugendichtband BG1 (expansion tape) to form a seal. Be careful that this rear board edge doesn't bend towards the inside of the housing, as this will reduce the opening, potentially binding the sunshade's movement. If you suspect this might occur, you can screw the back wall of the housing to the substrate later.

GUTEX Fugendichtband BG 1 (adhesive sealing strip)

- Apply a bead of caulking to the housing rests as well.

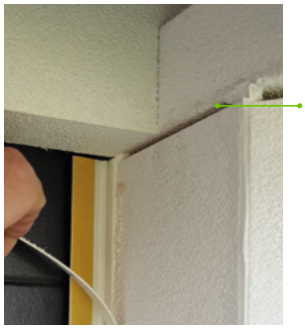
› Now install the housing in the cavity placing it on the rests or insert it into the opening.

› Position the housing, so that it is flush with the exterior insulation and level.

*Installing the housing during installation of the insulation boards*


*Installing the housing after insulation board installation*

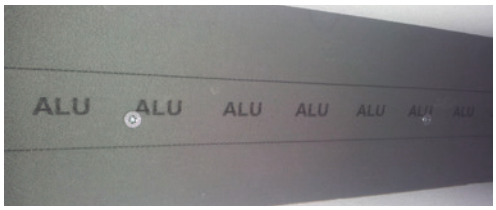
› Install the housing, positioning it so that the interior ends of the housing rests will be flush with the reveal/jamb insulation, which installs later.




› Once the sealant has dried, screw the housing to the substrate, using the GUTEX Thermowall® Holzschrauben or GUTEX Thermoschraubdübel that were provided with your order. Install 3 per linear metre.

It may also be good to secure the housing with fasteners through the back wall, sides or top.

*Fastening on the ends with GUTEX Thermowall® Holzschrauben (wood screws)*



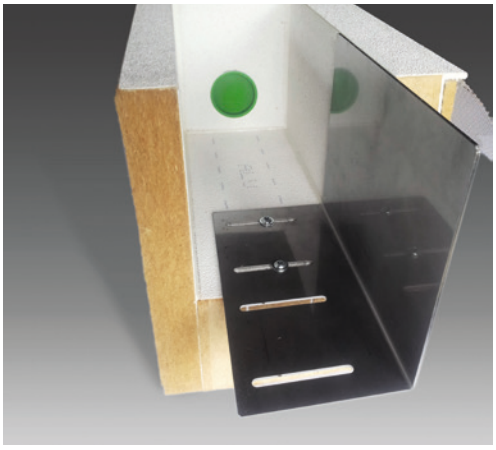

*Fastening the top with counter-sink screws*

### 3.2.3. Sealing

Seal all the joints between the sunshade housing and the adjacent insulation with Implio® Dichtkleber caulking.

### 3.2.4. Longer housings come in multiple sections

GUTEX provides Raffstorekästen (exterior blinds housings) with lengths longer than 2.50 or 2.00 m in multiple segments, which butt together and secure with GUTEX Implio® P Raffstorekastenverbinder connectors.



Apply GUTEX Implio® Dichtkleber sealant to the end of one of the two housing segments before butting the segments together so they are vertically and horizontally flush. Next, apply a bead using a meandering pattern to the longest side of the angle bracket and position the bracket evenly in the middle between the two segments. Now, the longest side of the angle bracket is on the backside of the housing's front panel. The bracket's short side screws through the oblong holes in the connector to the integral aluminium fastening plate with the provided screws.

### 3.2.5. Alternative: Sturzplatte (lintel insulation board)

If you're not installing a GUTEX Implio® Raffstorekasten (sunshade housing), you can still install the reveal/jamb insulation board on the lintel's (header's) underside.

**NOTE**

You will find specific installation instructions in the sections Window weatherproofing channel and Board installation on the following pages.

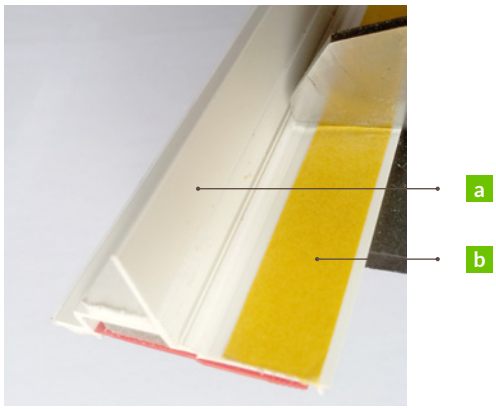
## 3.3. GUTEX Implio® P Fensteranschlussprofil (weatherproofing channel)

GUTEX Implio® Fensteranschlussprofil (weatherproofing channel) is suitable for 20, 30 and 40 mm thick Implio® P Laibungsplatten (reveal/jamb insulation).

**NOTE**

Make sure at least all of the channel's compressible foam stripping width covers the window frame, to ensure the required tightness' permanence. If the space to the window frame is so great that the backside PE adhesive strip does not contact the window frame, you will need to secure the channel in another appropriate fashion: e.g. by adhering the channel to the reveal/jamb and then installing both together. If you choose to do this, however, you should compensate for the minimum of window frame insulation by using a thicker reveal/jamb insulation liner.

› Cut the weatherproofing channel to the required length with a suitable tool (e.g. GUTEX Auflagenschere snips).




*Channel*

› In the corners (where the side and the top or bottom channels meet), cut the channels' inner sides *a* and the protective strips *b* and bend them back and forth until the segments break off at the score. Next do the same with the red strip.

If you're installing a reveal/jamb insulation board to the lintel underside, you must do it first. This applies for the matching window frame channel. Lastly, install the channel for the Implio® P Laibungsplatten (reveal/jamb insulation boards).

› Remove the backing of the PE adhesive strip on the back of the weatherproofing channel and, with the protective strip facing the window, press the channel onto the substrate, making sure it is flush and plumb. If necessary, you can use a spacer strip that is the same thickness as the reveal/jamb liner to position the window channel correctly.

› Position the Fensteranschlussprofile (weatherproofing channels) *c* so that the reveal/jamb liner insulation's exterior sides *d* are flush with the interior sides *e* of the sunshade housing.


› Choose the length of the weatherproofing channel so it ends at the bottom of the window frame where the frame setback begins (if present). Avoid butting the channels together!


**NOTE**

The red strip remains in position for now. Remove it after the reveal/jamb boards' adhesive has sufficiently dried, in order to activate the (Fugendichtband) expansion tape seal.

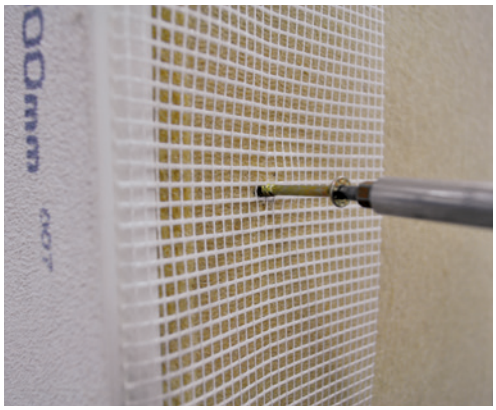
IMPORTANT: The window joints aren't tight against driving rain until you have removed the red strip and the Fugendichtband (expansion tape seal) has had the chance to expand. In the event of prolonged exposure to weather, lift the protective strip *b* slightly and pull the red strip out.

# 3.4. Installation - General

### 3.4.1. Cutting the fibreboards to size

If not ordered to specific size, you can cut the insulation with a suitable tool (circular saw with guide, table saw) to the required width and length. Since the board coating is not abrasive, you don't require special tools. However, to ensure you have clean edges and joints, use tools with sharp blades.

### 3.4.2. Adhesion and fixation



- Adhere Implio® P Laibungs- und Keilplatten (reveal/jamb and ledge insulation) with Implio® Dichtkleber. Figure on an average quantity of 1-3 cartridges per window element for the caulking and adhesive work, but it can vary depending on window size, jamb size and substrate conditions. Avoid penetrating the factory-prepped coating with fasteners. Should this, however, be unavoidable, countersink the screws and fill their holes completely flush with the surface, using Dichtkleber (caulking).

- To secure the reveal/jamb liner insulation until the adhesive dries, you may use wood clamps or a 90° mesh, nailing or screwing it to the GUTEX ETICS, but you must remove them once the adhesive has dried suitably.

**NOTE**

Longer reveal/jamb boards with widths under 100 mm are prone to warping. When you install them, make sure you straighten and fasten them suitably!

### 3.4.3. Board joints

- Avoid reveal/jamb board joints! If unavoidable, install so the joint is as high as possible and is 3 mm wide. Fill carefully with caulking.
- Occasionally hairline cracks may appear. Such cracks do not the allow ingress of moisture, but they can be cosmetic blemishes. For this reason we advise against butted reveal/jamb boards.
- You can have joints between ledge boards if you use Implio P Fensterbankdichtband (window ledge tape seal).

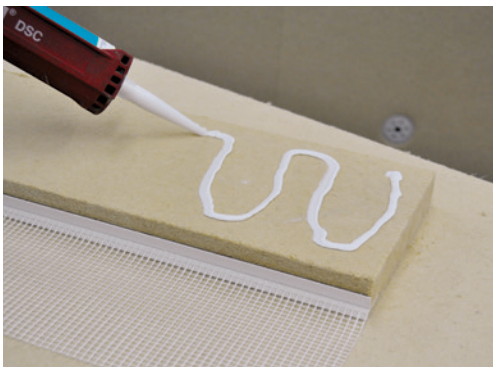
# 3.5. GUTEX Implio® P Laibungsplatte (reveal/jamb insulation)

Measure the Laibungsplatte (reveal/jamb) board depth, so that the front edge of the Putzanschluss-profil (render stop) extends beyond the adjacent GUTEX Thermowall® by the render base coat thickness (6 mm), while also including consideration for the Fensteranschlussprofil (weatherproofing channel 8 mm). Calculate to include 3-mm caulked joints at the tops of the side boards.

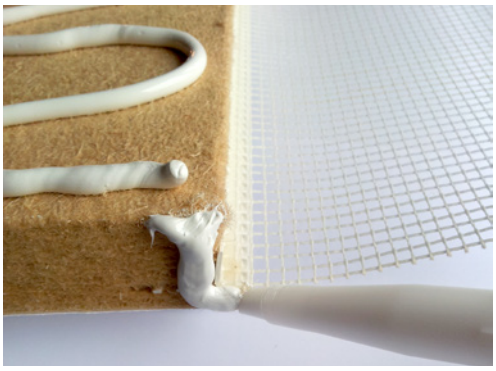
### 3.5.1. Installation

› Remove the protective backing inside the weatherproofing channel before installing the reveal/jamb insulation. To achieve adequate air tightness, apply a bead of caulking in the groove that is provided for this purpose in the GUTEX Implio® Fensteranschlussprofil in the corner to side *a*. The angled dispenser that we provide with the caulking is helpful.

› Apply GUTEX Implio ® Dichtkleber either to the back of the reveal/jamb insulation board or a meandering bead to the substrate, or use GUTEX Klebe- und Spachtelputz for masonry substrates. When you use GUTEX Klebe- und Spachtelputz, always apply it to the back of the board, preferably across the entire surface.




› The outward-facing bottom edges and corners of the reveal liner insulation require suitable sealing. Apply some caulking at the bottom of the board's front edge. The top ends of the reveal/jamb insulation and the adjoining ends of the ledges and lintel (header) insulation boards form 3-mm joints when assembled, which you can caulk with Dichtkleber when fully assembled.



› Once you have applied the adhesive, slide the reveal/jamb insulation boards into the weatherproofing channels, making sure they make contact with the back of the channel. Press them into the Dichtkleber so they are tight across the entire backside.

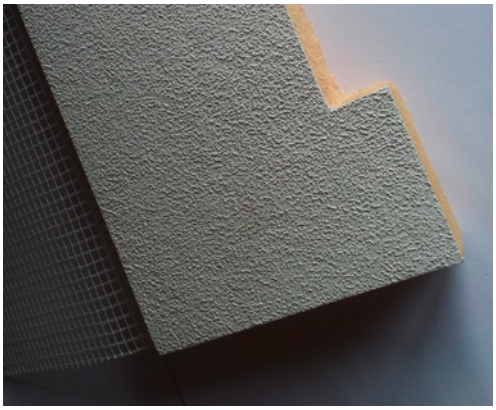
› Make sure the reveal joints are square in order to obtain the best windowsill fit.

### 3.5.2. Cut-out

› Fill the joints between the reveal/jamb insulation and the window frame with GUTEX Dichtkleber adhesive caulking and with a suitably dimensioned piece of insulation to fit the corners. Make sure the piece of insulation doesn't fit so tight that it prevents you from providing a suitable bead of caulking around its perimeter.

Upon completion, the corners must have clean perpendicular shapes in order to allow the subsequent installations of the Keilplatte (ledge insulation) and Bordprofil (corner underlay).

- Implio® P Laibungsplatten boards also order with a factory-made solution to facilitate your attempts to effectively seal the corners where windows, ledges and jambs come together. This is both effective and saves you time. You must include the thickness of the Fenster-anschlussprofil (weatherproofing channel 8 mm) and the thickness of the caulked joint (3 mm) between the projection and the subconstruction of the window frame! Caulk the joint between the projection and the window frame so it is flush.



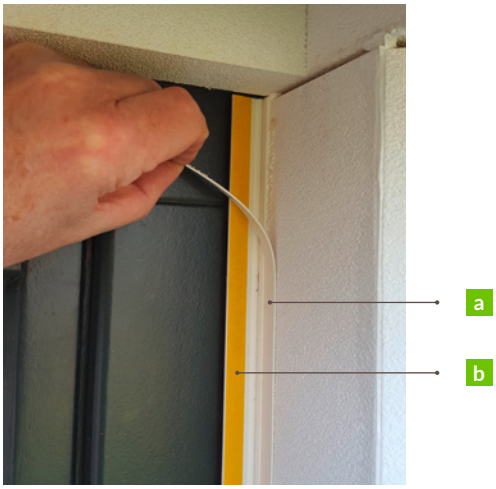
- Since the water-carrying and diverting surface of the vertical Fensteranschlussprofil (window weatherproofing channel) is the Fugendichtungsband (expansion sealing strip), its ends must extend sufficiently into the corner joint *e*, in order to seal the channel effectively at its bottoms.

- Any slots or grooves in which water could travel, for example, where the ledge or frame clip or join their adjacent elements should be suitably sealed with caulking *f*. These slots or grooves are usually on the projecting underside of the window frame.


- As soon as the adhesive has sufficiently dried, remove side *a* of the Fensteranschlussprofil (weatherproofing channel). Preferably, check on the same day to make sure the liners fit tightly against the back of the channels. If properly performed, the caulking can be seen along the entire lengths up to the pre-scored cuts.

- Now the reveal/jamb boards are ready for render. Apply the render over the ribbed Anschlussprofil channel up to the stop bead, which projects 3 mm beyond the board surface, creating a clean render edge.

- Prior to this, however, install the Keilplatte (ledge insulation) and Bordprofile (ledge cover corner underlays), completing all the necessary joint and caulking work.



› The protective strip *b* and the adhesive tape allow you to attach plastic before you apply render to the reveal/jamb.

› Once you've finished the render, fold the protective strip *b* and remove it with the plastic foil.

**NOTE**

The protective strip has a score, which is where it breaks off. It does not break off flush. This leaves the 3-mm high final render stop. To keep the application of render easy and manageable, it is important that you avoid damaging the protective strip or, particularly, the render stop.

› As shown in the picture, the protective strip on the rendered board has been removed, leaving the finish stop bead. With the protective strip gone, the red strip is easily visible.

## 3.6. GUTEX Implio® Keilplatte (ledge insulation)

In some cases, such as uneven surfaces, for instance, rough cut stone substrates, etc., you may have to install something at the back of the rough ledge before installing the Keilplatte (ledge insulation). Adhere a small plastic angular bracket to the underside of the window frame for this purpose.

Usually, however, the surface will be even and have suitable corners, so that you can set the Keilplatte in place with little effort. Figure and fit the Keilplatte, so there are 3-mm joints between the reveal/jamb and ledge insulation boards as well as the reveal/jamb insulation and window frame.

### 3.6.1. Installation

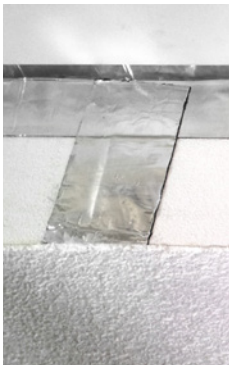
› Apply GUTEX Implio ® Dichtkleber either to the back of the window ledge insulation board or in a meandering bead to the substrate, or use GUTEX Klebe- und Spachtelputz for masonry substrates. When you use GUTEX Klebe- und Spachtelputz, always apply it to the back of the board, preferably across the entire surface.

› Adhere the ledge insulation board, adjusting its position, whilst making sure it is horizontally level and has a pitch of at least 5° down and away from the window.


**NOTE**

If you do not have enough height to allow you to use the GUTEX ledge board, you may use the GUTEX Type 20 Laibungsplatte (reveal/jamb liner insulation) with suitable modifications performed by others to provide the required 5° pitch.

› Keilplatten (ledge insulation) boards may butt together, but keep their joints at 3 mm and fill the joints with Dichtkleber caulking. After caulking the joints, apply GUTEX Implio® Fensterbankdichtband (window ledge tape seal) over the joints.



## 3.7. Sealing

### 3.7.1. Activating Fensteranschlussprofil (weatherproofing channel)

› Usually the time to do this is after the render application is complete and the protective strip *b* has been removed.

**See figure Channel on P. 18**

› Pull the red protective strip out from the side.

› If you remove the red protective strip immediately after installation, i.e. before the adhesive has had time to dry on the reveal/jamb board, the board, along with the entire weather proofing channel, might just shift forwards due to the expansion of the compressive sealing strip.

› The expanded seal delivers tightness in the face of ongoing movement, which is a necessary design criterion for the system's effectiveness and certification.

› In the event of prolonged exposure to weather, lift the protective strip *b* slightly and pull the red strip out. In addition, you will need to fasten the GUTEX Implio® P Laibungs- und Keilplatten mesh in a suitable, temporary fashion to the GUTEX Thermowall® insulation boards to avoid fatigue fracturing. Screws or nails are suitable, but you must remove them before beginning with the render.

**NOTE**

The window joints aren't tight against driving rain until you have removed the red strip, and the Fugendichtband (sealing strip) has had the chance to expand!

### 3.7.2. GUTEX Implio® P Fensterbankdichtband und Dichtecke (window ledge tape seal and corners)

› First, caulk the joints between the ledge board and the reveal/jamb liner insulation as well as, if applicable, between the ledge board and window frame completely with GUTEX Dichtkleber.

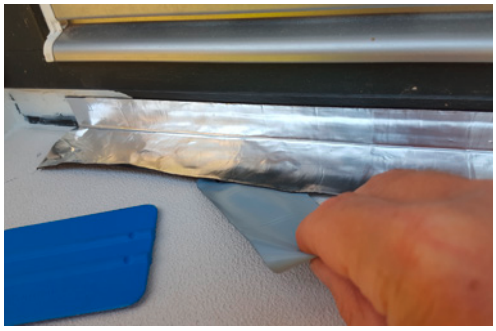
› Now it's time to seal the joints around the ledge insulation with GUTEX Fensterbankdichtband (window ledge tape seal), which you can apply over wet caulking, but is advantageous to wait a bit. Important to note is that a double layer of the tape in the back corners (adjacent to window frame) is the most you can install, otherwise the stipulated minimum height for the setback (space between window frame and ledge) will not suffice.

› Cut Fensterbankdichtband (window ledge tape seal) for both the sides and the back edge of the ledge board in lengths that end 60 to 70 mm from the corners.

**NOTE**

To obtain faster and improved adhesion to the substrate -- particularly when the temperature is low -- use a hand-held blow dryer to warm the Fensterbankdichtband (window ledge tape seal) before pressing it into place with a roller.

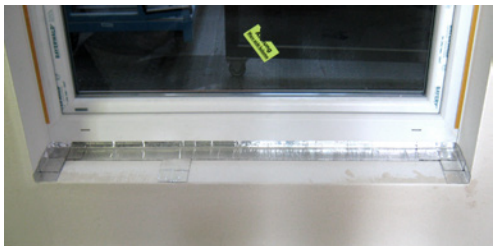
› Installing the GUTEX Fensterbanddichtband (window ledge tape seal) is easiest when you first remove the backing off the narrow side of the tape and press it onto the substrate. After you have completed this, remove the backing from the rest of the tape and press it onto the ledge, using either a roller or finishing spatula.



› Place one GUTEX Implio® P Fensterbankdichtecke (window ledge tape seal corner) in each corner. They should also form clean 90° corners to allow the proper fitting of the ledge cover corner underlays.

› Apply a small amount of Dichtkleber caulking on the top edges of the Fensterbankdichtecke (window ledge tape seal) in the back corners to achieve the best possible tightness.

› You are now finished with the tape.



### 3.7.3. Caulking around the windows

› Carefully caulk all the joints between the reveal/jamb boards and ledge boards as well as the adjacent GUTEX Thermowall® insulation boards.

› For the reveal/jamb boards, you can skip the caulking if the boards have been butted tightly together with sufficient sealant or compound on their backsides.

› Fill the joints between the lintel or sunshade housing and the reveal/jamb insulation boards with Implio® Dicht-kleber caulking.

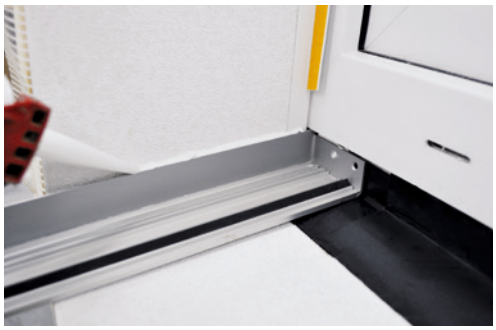
## 3.8. Ledge cover corner underlays

For the window ledge corner underlays, you may use either GUTEX Implio® Bordprofil, an aluminium channel, or GUTEX Implio® Kunststoffwinkel, a plastic channel piece. Both ensure the necessary ventilation between the ledge and ledge insulation board as well as pinch-free installation of the window ledge. Install the underlays before you begin with the render work and install the ledge upon completion. This ensures the window ledge won't be subject to damage or soiling during render work. It also keeps the render material from plugging up the back ventilation between ledge and insulation board.

### 3.8.1. GUTEX Implio® Bordprofil (ledge cover corner underlay)

› To install the GUTEX Implio®Bordprofil (ledge cover corner underlay), apply a bead of GUTEX Implio® Dichtkleber adhesive to all the surfaces affected and then press the ledge cover corner underlay into the required position.

› Apply a 45° bead of Dichtkleber caulking to the joint between the Bordprofil underlay and the adjacent vertical reveal liner, filling it completely. Later, you will apply the final render up to this bead and create a trowel cut in the render. Seal the joint between the underlay and the ledge insulation as well.



For most installation situations, you won't require the two holes in the back of the underlay, since the adhesive takes care of the fastening and transfer of load.

If you should put screws in here, then only to fix the position, and only hand-tight. Do not tighten them once you have completed the installation, as this could lift the underlay upwards thereby damaging the surface finish on the board.

**NOTE**

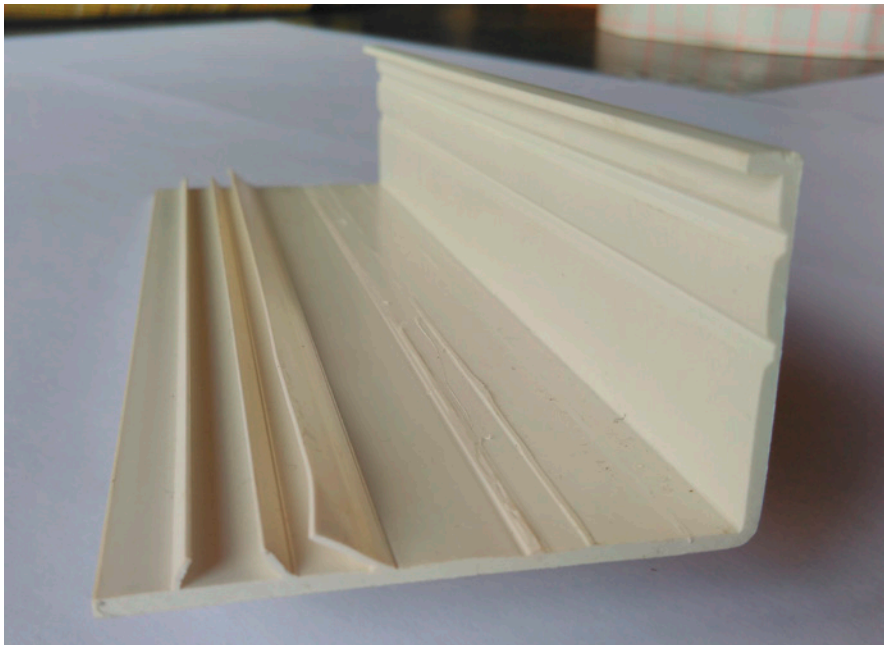
Only Polythal's Fenorm aluminium ledge covers are suitable for use on Implio® Bordprofil underlays. GUTEX does not carry these ledge covers, but you can obtain them from your source of building products or directly from Polythal.

### 3.8.2. GUTEX Implio® Kunststoffwinkel (GUTEX Implio® plastic underlay)

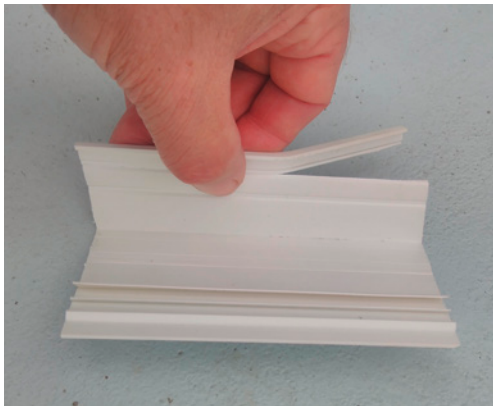
Another option to using GUTEX Implio® Bordprofil underlays is GUTEX Implio® Kunststoffwinkel (plastic angle underlays). Any window ledge with simple end pieces installs over the plastic angle underlays without the need for work or materials to accommodate the length.

The Implio® Kunststoffwinkel (plastic corner underlays) have a U-shaped profile and a 5-mm horizontal web, which is not required in the Implio® P system. Since the vertical side is usually shortened for most window applications, the web is not a factor.

They come in lengths of 2.00 m, and cut to the required size by others. The plastic angle underlays do not possess a vertical back section to abut window frames.



- Cut the plastic underlay first, so that it is flush with the end of the Keilplatte (ledge insulation board). The vertical side of the underlay should have a 5° pitch at both the front and back.



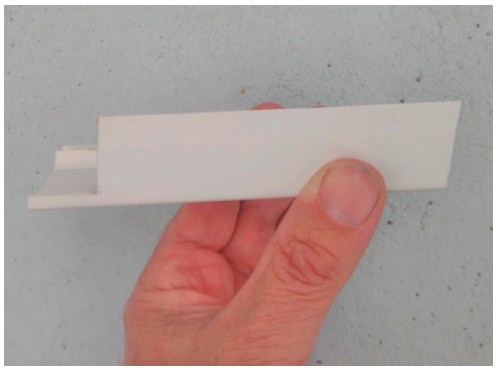
- Shorten the vertical side, using one of the pre-scored cuts. The height should be such that the window ledge covers the plastic underlay completely upon its installation.

- Otherwise, there are no differences in the installation and sealing of the Implio® Kunststoffwinkel (plastic underlay) and the Implio® Bordprofil (aluminium underlay).

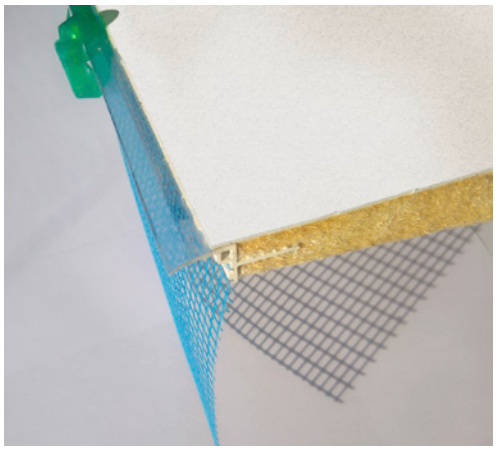
- There are two ways of preventing signs of water runoff on the façade under the plastic underlay. If you install the underlay as described above and install the window ledge later, you can use Fugendichtband joint tape.

**Refer to 3.9 Window ledge installation**

- Another option is to extend the horizontal leg of the plastic underlay under the window ledge so it extends beyond the exterior finished wall and the water thus drips away from the wall. If you choose this way, you need to clip off the vertical section so it is flush with the exterior finished wall.



- You may also order Implio P and Implio P02 Keilplatten (ledge board insulation) with a transparent drip cap, which ensures the water drips 1 cm in front of finished exterior wall. Thanks to the drip cap's transparency, it remains hardly visible once you have removed the green protective strip.

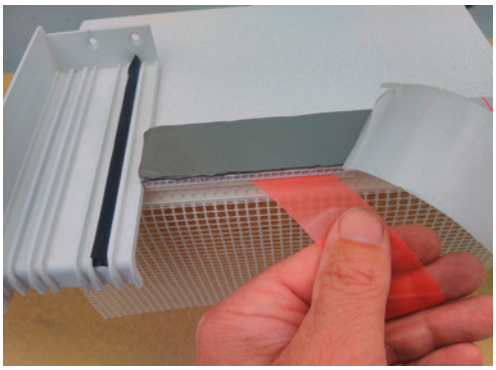


### 3.8.3. GUTEX Implio® Hinterlüftungsprofil (vent channel)

GUTEX Implio® Hinterlüftungsprofil (vent channel) allows you to neatly end the vented structure under the window ledge. It is not mandatory.

The channel keeps the vent function reliably open and the vent channel's design prevents the nesting of insects under the ledge. The self-adhesive butyl tape on the top surface of the channel provides an additional, elastic adhesion between the window ledge and the insulation board underneath.

› Remove the pink protective film from the backside of the Hinterlüftungsprofil (vent channel) and stick the channel to the ledge board so it's flush with front edge of the ledge insulation board. The vent channel should extend right and left until it reaches the underlays. Later, when you install the window ledge, remove the protective film from the topside of the butyl tape.



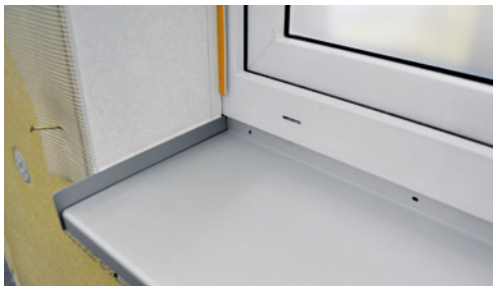
**NOTE**

To keep the Hinterlüftungsprofil (vent channel) free of blockage and soiling during render work, it is best to wait with the installation of the channel until the render work has been completed, or you may cover the channel with GUTEX Implio® F Klebeband prior to installing the render.

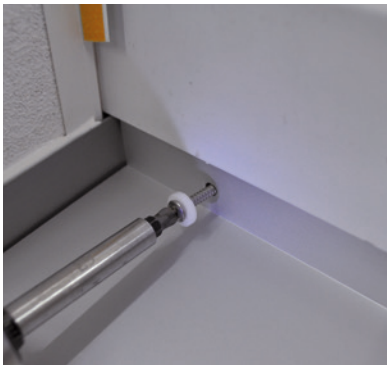
## 3.9. Installing window ledges

› Remove any oily substances or residues on the window ledge's underside. GUTEX suggests applying a thin piece of joint tape onto the window ledge's vertical section to prevent the ingression of dirt and moisture. However, the system is reliably water-tight even without the second weatherproofing.

› Apply beads of Dichtkleber sealant 30 cm apart and perpendicular to the window on the window ledge insulation. Now press the window ledge into postion and down into the sealant.



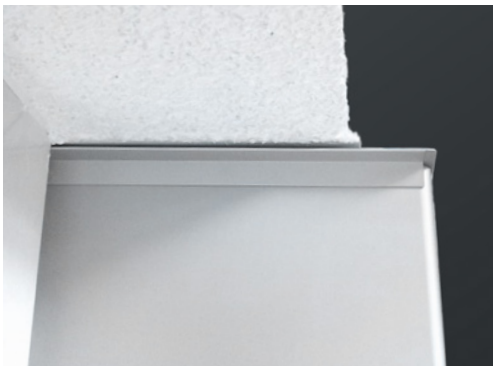
› Fasten the aluminium ledge, using sealing screws. Tighten the screws in the middle only slightly to avoid deforming the ledge cover. Once the screws are tight, clip screw head covers over the screw heads.



› Figure the length of the ledge cover so there is 2-3 mm of space on both ends to allow for movement/expansion.

This joint may be between either the window ledge cover and aluminium underlay (above) or between the window ledge cover end pieces and plastic underlays (below).

Between the plastic underlays and the ledge end pieces, we strongly suggest you install a length of weather stripping if the horizontal side of the plastic underlay ends flush with the finished exterior wall surface. This will prevent the occurrence of water runoff marks on the finished walls.



**NOTE**

Both natural and artificial stone window ledges integrate into the GUTEX Implio® P system without problem. Use the Implio® Kunststoffwinkel plastic underlays and install a narrow weather strip on the sides and at the back. Due to the minimum length expansion, the expansion joint can be narrower than what is necessary if you are using aluminium window ledges.

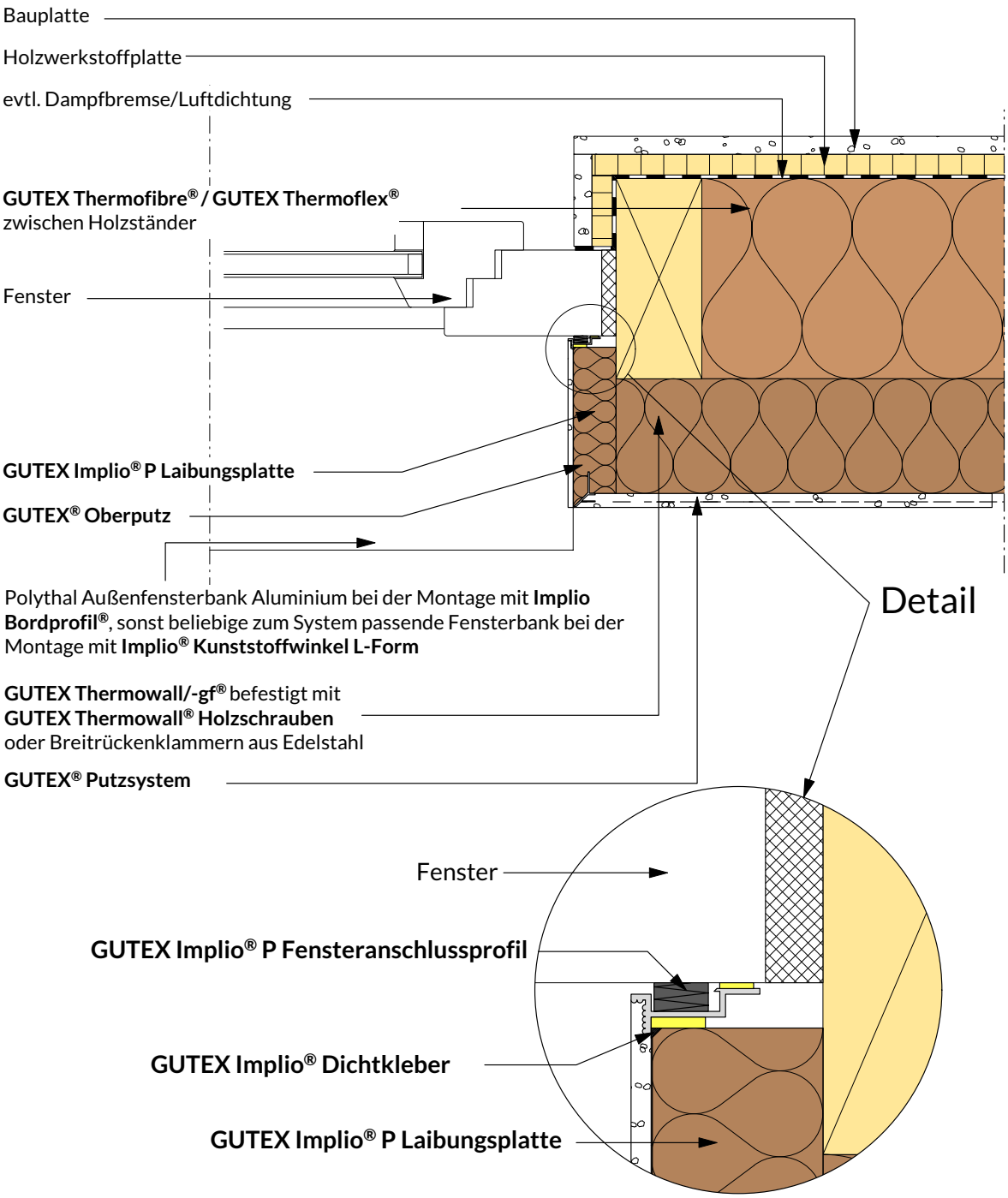
# 4. DESIGN DETAILS

In the following, you will find several important design details.

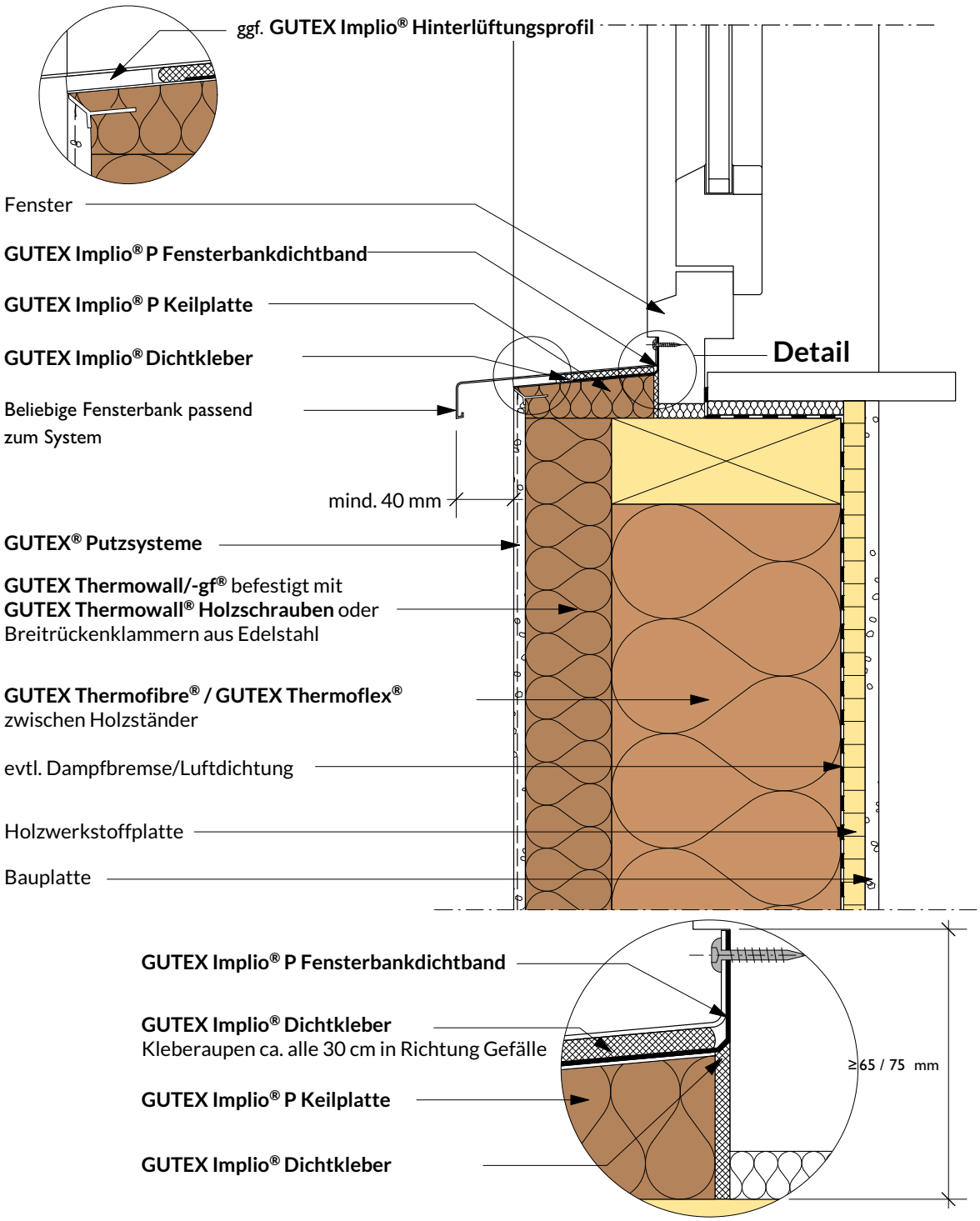
**NOTE**

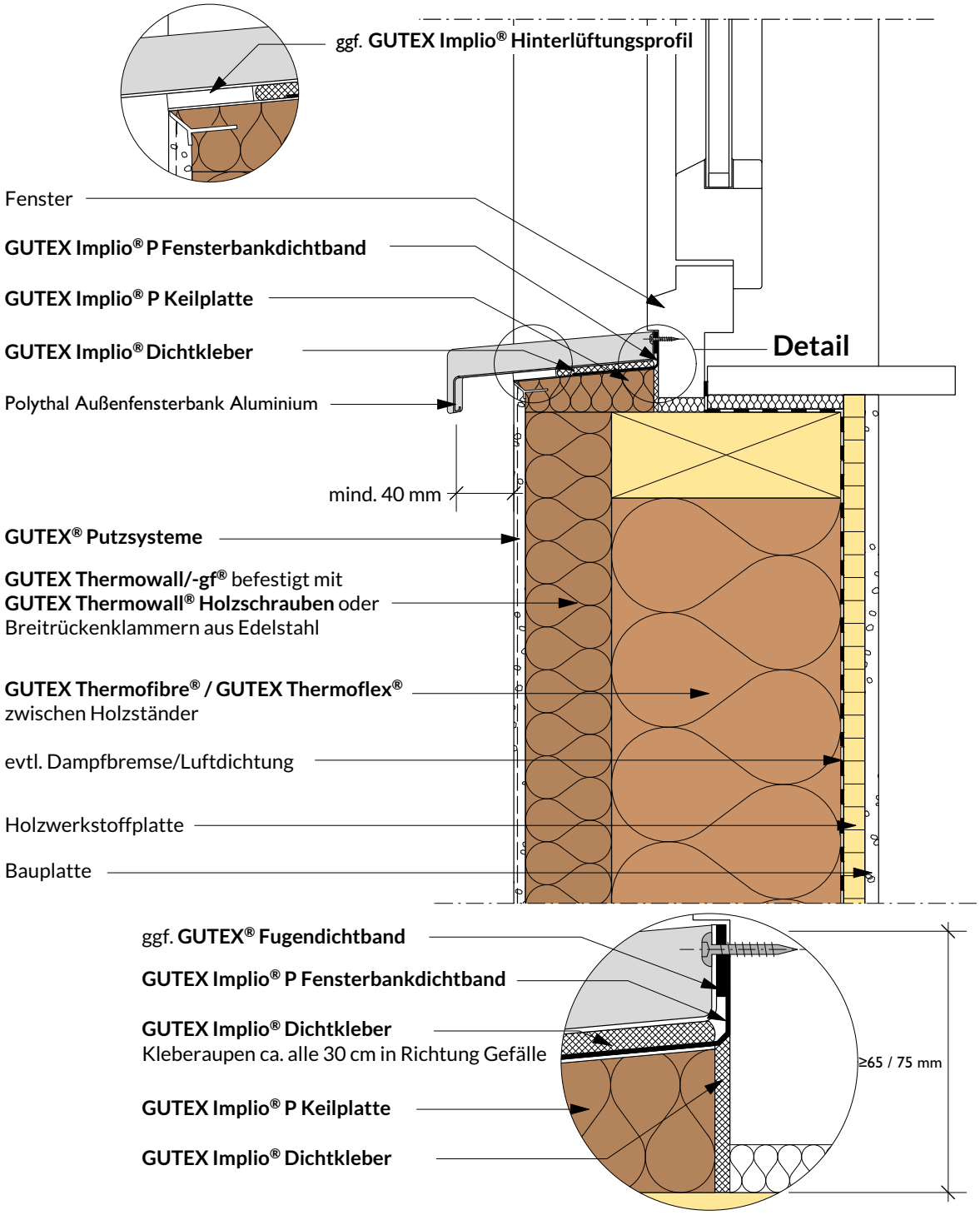
You'll find more detail drawings at www.gutexcz.com. Or contact GUTEX technical assitance.

## 4.1. Reveal/jamb

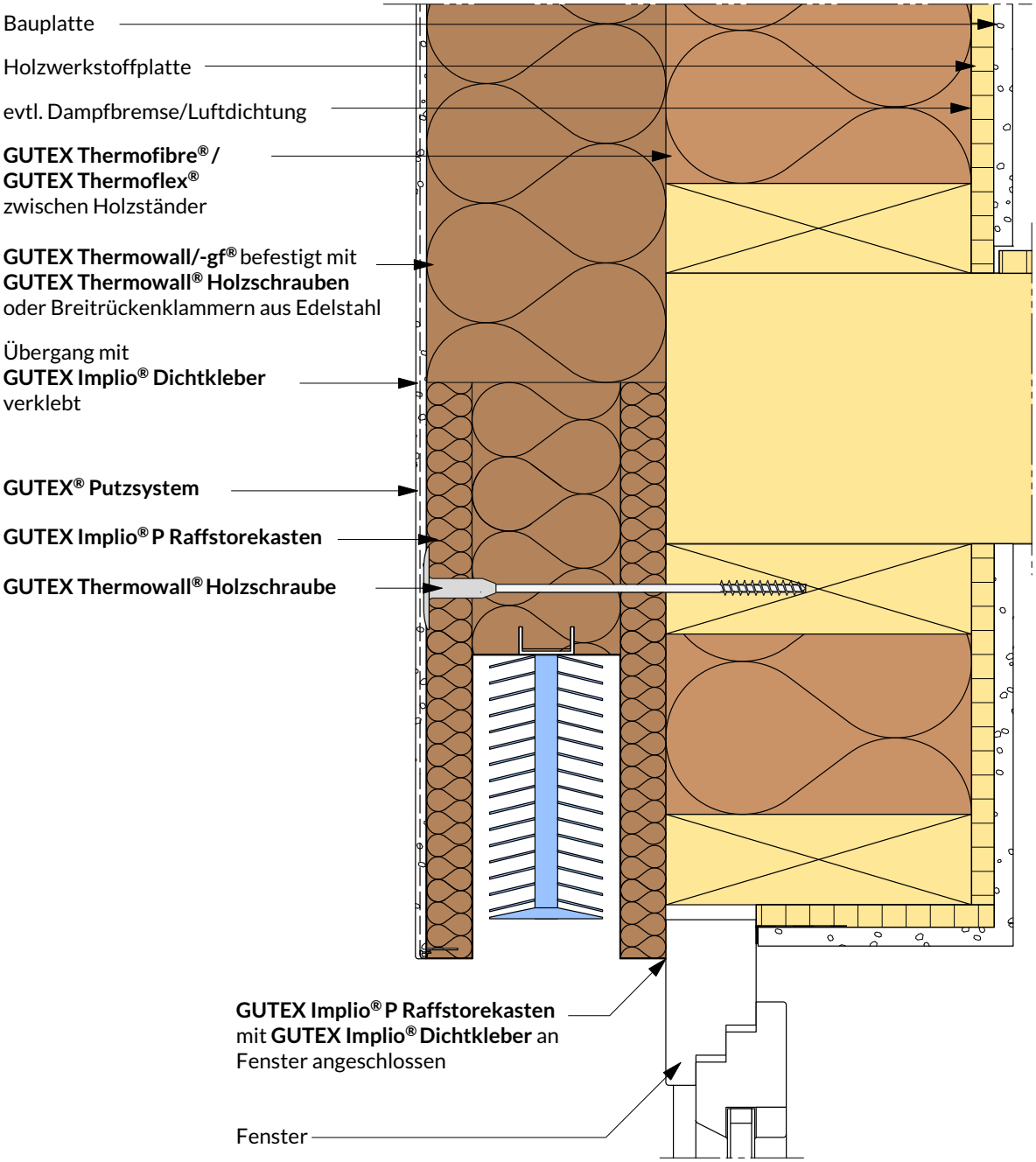


## 4.2. Ledge insulation and window ledge




ggf. GUTEX Implio® Hinterlüftungsprofil
Fenster
GUTEX Implio® P Fensterbankdichtband
GUTEX Implio® P Keilplatte
GUTEX Implio® Dichtkleber
Polythal Außenfensterbank Aluminium
Detail
mind. 40 mm
GUTEX® Putzsysteme
GUTEX Thermowall/-gf® befestigt mit
GUTEX Thermowall® Holzschrauben oder
Breitrückenklammern aus Edelstahl
GUTEX Thermofibre® / GUTEX Thermoflex®
zwischen Holzständer
evtl. Dampfbremse/Luftdichtung
Holzwerkstoffplatte
Bauplatte
ggf. GUTEX® Fugendichtband
GUTEX Implio® P Fensterbankdichtband
GUTEX Implio® Dichtkleber
Kleberaupen ca. alle 30 cm in Richtung Gefälle
GUTEX Implio® P Keilplatte
GUTEX Implio® Dichtkleber
≥65 / 75 mm

## 4.3. Exterior blind housing



# 5. PRODUCT RANGE AND ACCESSORIES

**NOTE**

For a complete list of our products and accessories, please view our price list at:

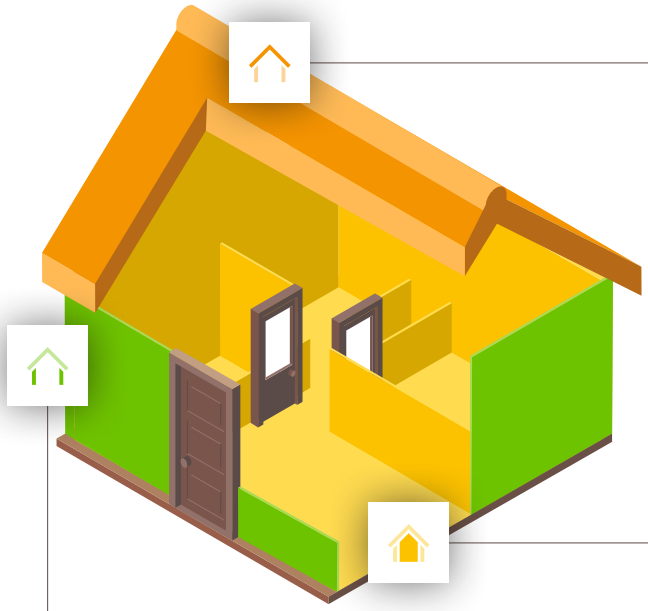
**www.gutexcz.com**

# NOTES

# NOTES

# NOTES

# 6. APPLICATIONS AND SOLUTIONS



## Roof

- Tecadio® GUTEX roof refurbishment system
- Above-rafter insulation
- Sarking boards
- Flat roof insulation
- Cavity insulation (GUTEX Thermoflex®)
- Cavity insulation (GUTEX Thermofibre® blow-in insulation)

## Interior

- Intevio® GUTEX interior insulation system
- Vapour permeable underlay installed from interior between rafters
- Rafter underside insulation boards
- Insulation under screed (dry / wet)
- Top storey ceiling
- Suspended ceiling
- Solid wood flooring / Solid wood plank flooring
- Service cavity insulation course
- Partition walls
- Cavity insulation (GUTEX Thermoflex®)
- Cavity insulation (GUTEX Thermofibre® blow-in insulation)

## Exterior Wall

- Thermowall® ETICS External Thermal Insulation Composite System
- Render
- Rainscreen
- Brick facing
- Durio® GUTEX system for unique facade design
- **Implio® GUTEX window integration system**
- Cavity insulation (GUTEX Thermoflex®)
- Cavity insulation (GUTEX Thermofibre® blow-in insulation)

# IMPLIO® ADVANTAGES

- Systems deliver greater dependability
- Durable weather protection
- Lasting value
- Very economical
- Certified quality
- Sustainability
- Service

## GUTEX belongs to the iWDVS® engineering network

iWDVS® was conceived as a design network to facilitate cooperation between companies and across trades, with the purpose of improving performance via advanced system solutions. iWDVS® solutions, such as Implio®, are subject to rigorous in-situ testing and, upon passing, receive a certificate by a qualified institute (e.g. ift-Rosenheim). Thus, homeowners, architects and tradespersons finally have assurance that not only components, but also complete system solutions will perform exactly as specified.

**OUR PRODUCT AND SERVICE DESIGNATIONS**

Roof | Wall | Interior

*Hotline*

info@gutexcz.com

GUTEX®
NATURALLY MADE FROM WOOD

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*Knowing you've done the right thing. That's the GUTEX effect.*

THE GUTEX EFFECT



10/2018
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