PRODUCT SHEET

UNDERPLASTER PURENIT BOX
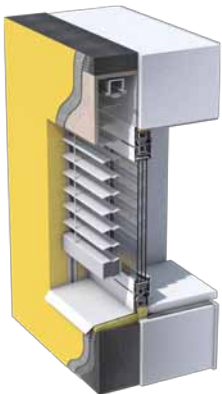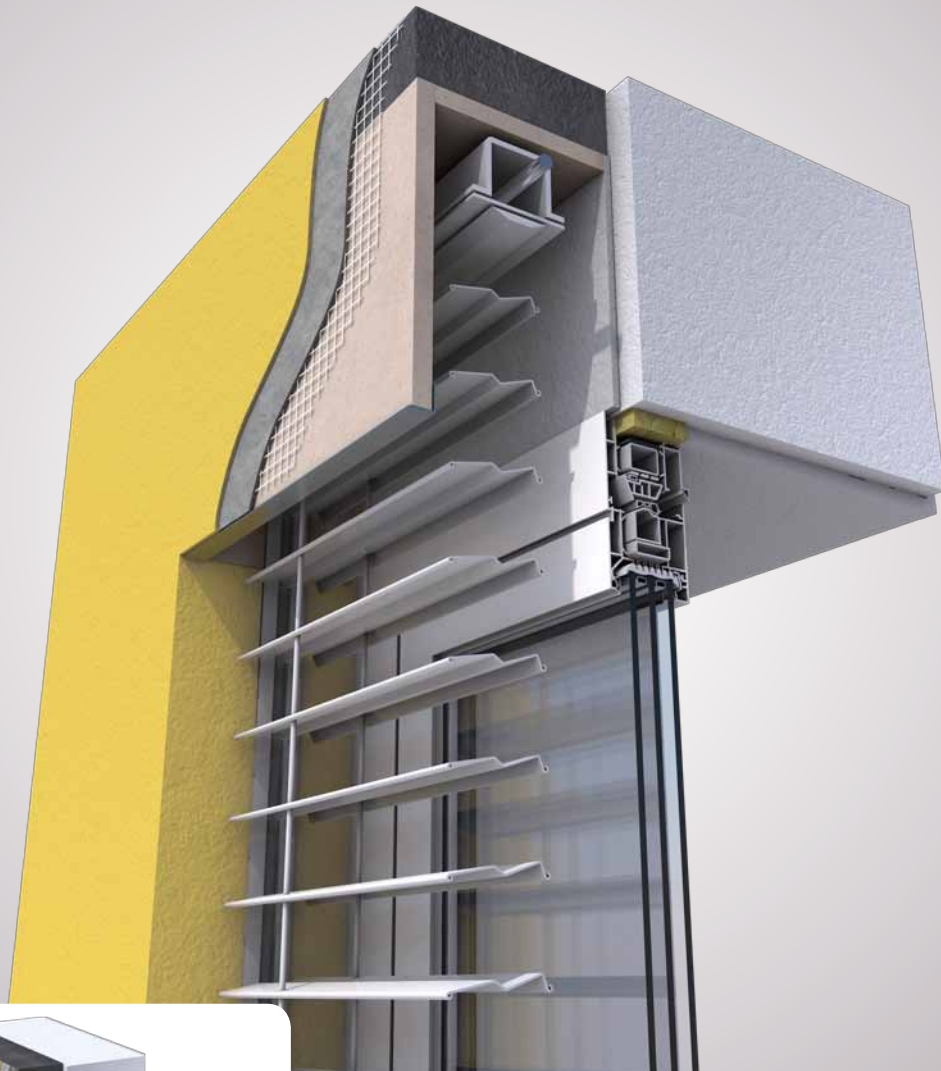
Contents

ISOTRA *Quality*

A brand that represents many years of tradition, incalculable investments into own development, use of high-quality materials, technological advancement, competent work of hundreds of employees, and many other parameters constituting a composite whole – the final ISOTRA product

UNDERPLASTER PURENIT BOX

- ▲ **modern and effective solution**
- ▲ **quick installation**
- ▲ **versatility - for new buildings and reconstructions**

ISOTRA *Quality*

Basic product specifications

Purenit boxes are a modern and effective solution for installing exterior shading systems, such as exterior blinds and exterior roller shutters. The use of purenit boxes brings a number of advantages for the heat insulation of buildings and the aesthetic completion of building details. Purenit boxes create a hidden space for installing shading equipment without disturbing the appearance of the facade.

Advantages of using purenit boxes:

- Improving the energy efficiency of the building - reducing waste of heat.
- Protection of the structure - purenit protects building joints from moisture and deformation.
- Quick installation - purenit is light and easy to work with.
- Versatility – it can be used for various types of building solutions, from new buildings to renovations.

Purenit boxes are highly resistant to many influences (pressure, temperature, humidity, etc.), are solid and lightweight. Purenit is characterized by minimal thermal expansion and its fire resistance is B2 according to DIN 4102-1.

Limit dimensions of boxes							
Box length D		Dimension A		Dimension C		Dimension B	
Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
500 mm	6000 mm	120 mm	600 mm	120 mm	600 mm	150 mm	300 mm

* Boxes longer than 3500 mm are assembled from multiple pieces – see Box connection
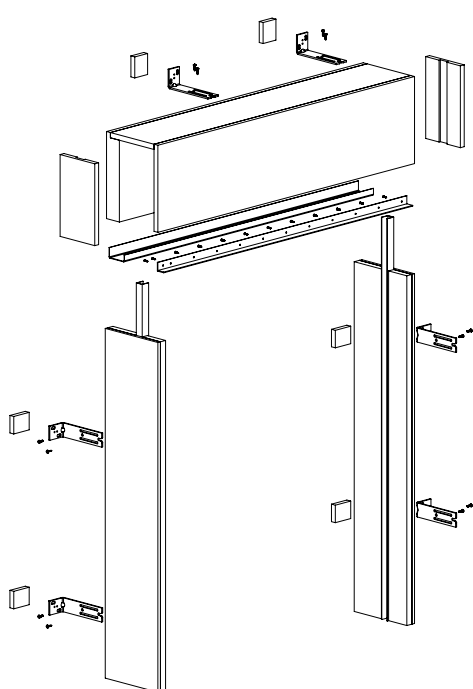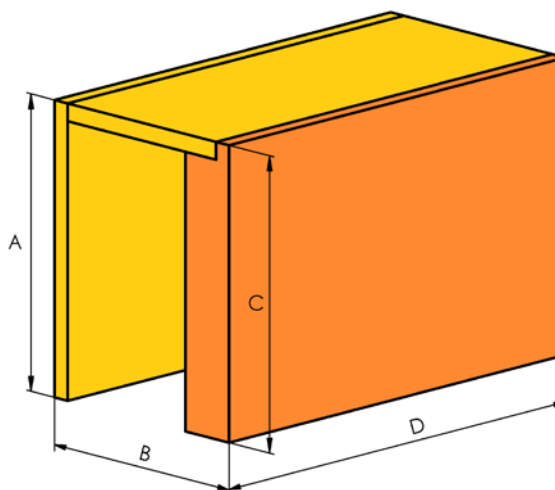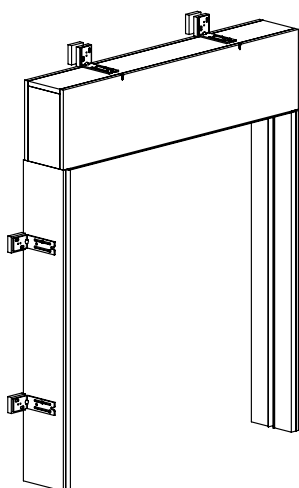
Box: ISOTRA PB-IS   2-01835-XXXX-...
surround: PIO - Purenit insulation jambs
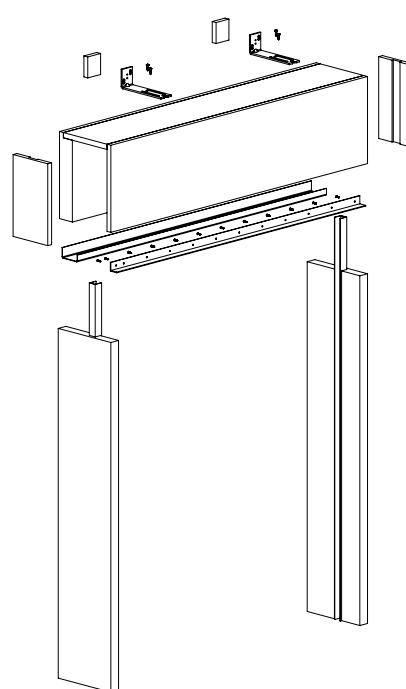
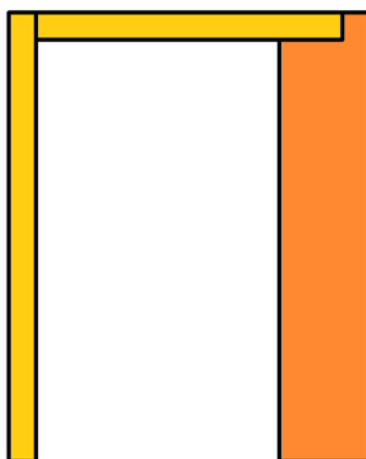Box: ISOTRA PB-IS   2-01835-XXXX-...
surround: SIO - Polystyrene jambs

| Item designation	Drawing number – abbreviation 1
Purenit 2440x1220x15 mm	6-018994-0015
Puren PIR MV 1200x600x30 mm	6-018995-0030
Puren PIR MV 1200 x 600 x 40 mm	6-018995-0040
Puren PIR MV 1200 x 600 x 50 mm	6-018995-0050
Puren PIR MV 1200 x 600 x 60 mm	6-018995-0060
U plate 23 x 30 mm	3-04314-PU11
U plate 40 (PIR30) – RAL	3-04343-PU11
U plate 50 (PIR40) – RAL	3-04344-PU11
U plate 60 (PIR50) - RAL	3-04318-PU11
U plate 70 (PIR60) – RAL	3-04346-PU11
Chipboard screw 3x16 mm,A2–countersunk - torx	6-019122-0000
Short mounting bracket	3-04424-PU22
Long mounting bracket	3-04425-PU22
Non-isosceles Al profile - L, 20x20x2	6-013663-0000
Non-isosceles Al profile - L, 25x25x2	6-018990-0025
Non-isosceles Al profile- L, 30x30x2	6-018990-0030
Non-isosceles Al profile - L, 35x35x2	6-018990-0035
Non-isosceles Al profile - L, 40x30x2	6-018990-0040
Mounting purenit washer	3-04483-0000
Chipboard screw 4x16 mm, Zn – semicirc. head - torx	6-019458-0000
Chipboard screw 3,5x16 mm, Zn–semicirc. head-torx	6-019459-0000

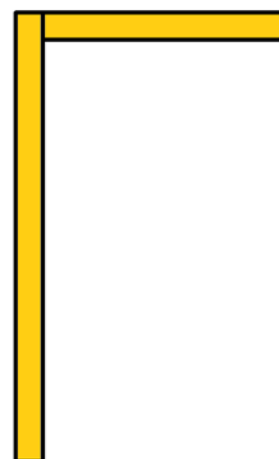## Variants of Purenitboxes
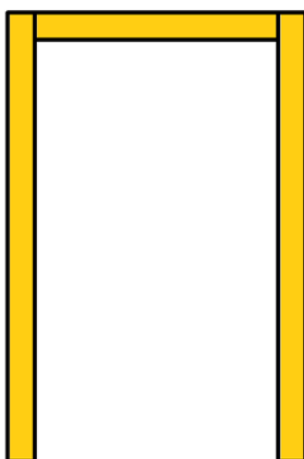
ISOTRA PB   ISOTRA PB-IS   ISOTRA PB-L
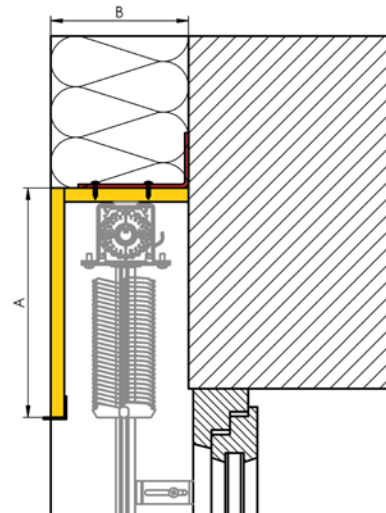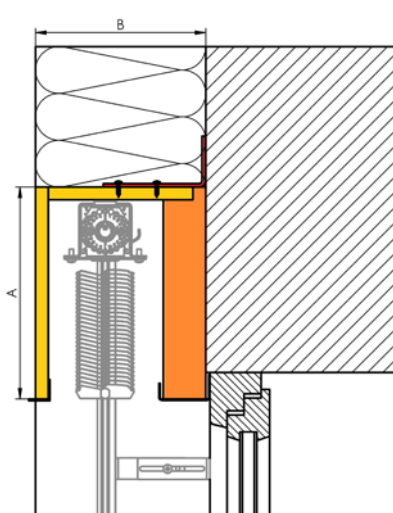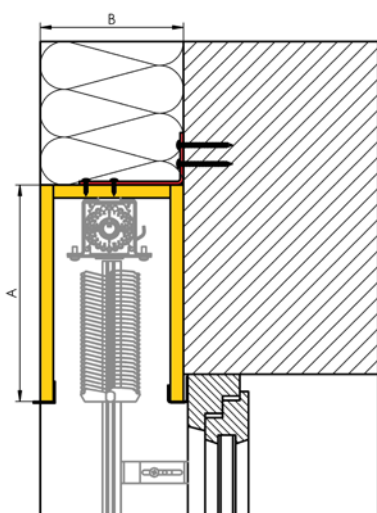
Composition of Purenit boxes

- Purenit - front side of the box (we can freely anchor consoles and brackets of blinds into it)
- Insulation - back side of the box (adjacent to the lintel, connection gap and window frame)
- Mounting U profile

	Dimensions
Type	B1
ISOTRA PB	15
ISOTRA PB-IS 30	30
ISOTRA PB-IS 40	40
ISOTRA PB-IS 50	50
ISOTRA PB-IS 60	60
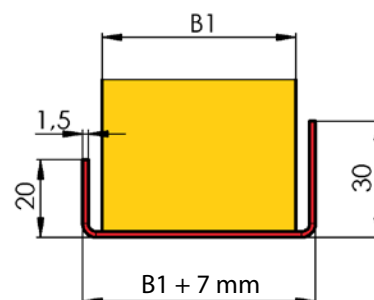
- Underplaster rail

	Dimensions	
Type	H	J
20	20	3
25	25	8
30	30	13
35	35	18
40	40	23
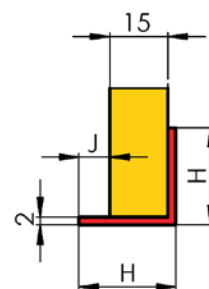
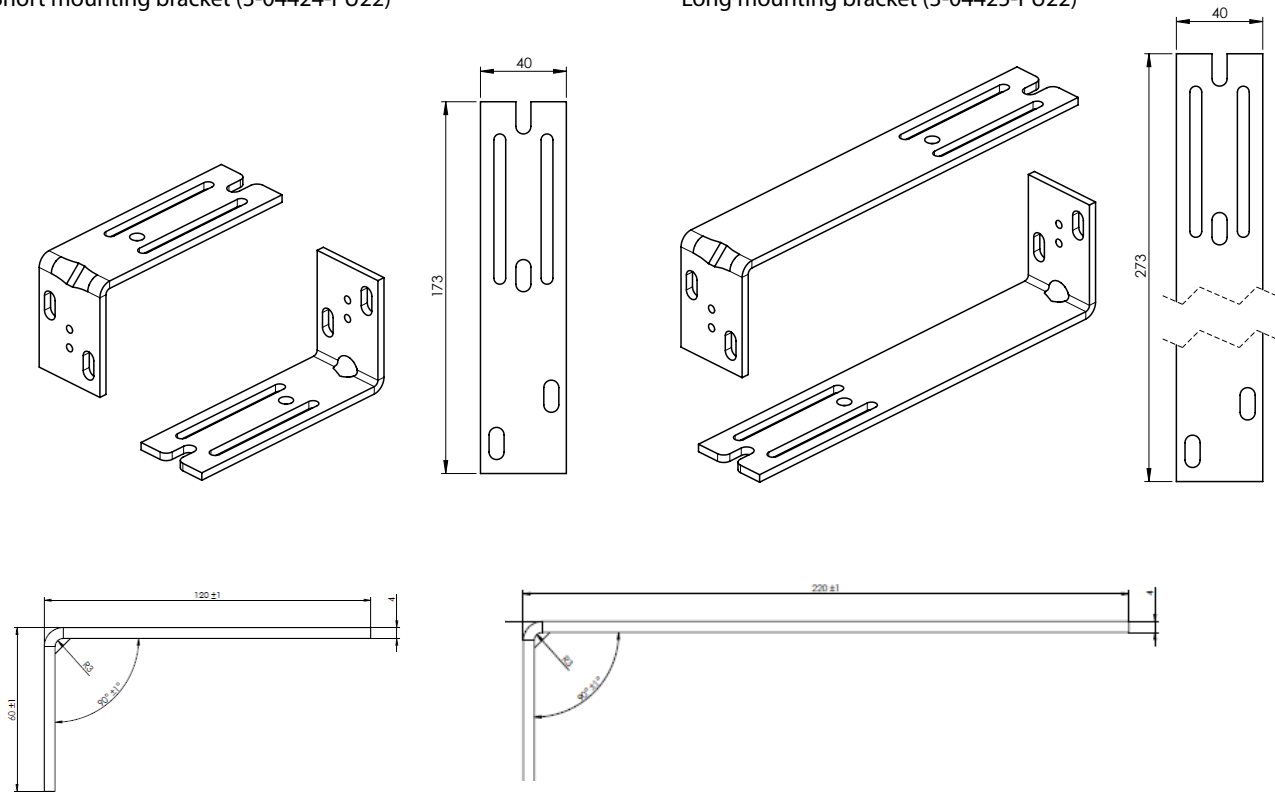| THICKNESS of PIR* insulation (for type PBI)	20	30	40	50	60
Thermal resistance RD [(m²·K)/W]	0,20	0,35	0,45	0,55	0,70
Thermal transmittance [2] UD [(m²·K)/W]	2,94	2,04	1,69	1,45	1,19
Diffusion resistance Sd [m]	0,16	0,24	0,32	0,40	0,48

*PIR = Polyisocyanurate foam

Type of spray-coating:

A) only mounting profile

B) both mounting and under-plaster profile

C) only under-plaster profile

Colours offered according to the RAL sample book for exterior blinds. The inside of the box is painted grey.
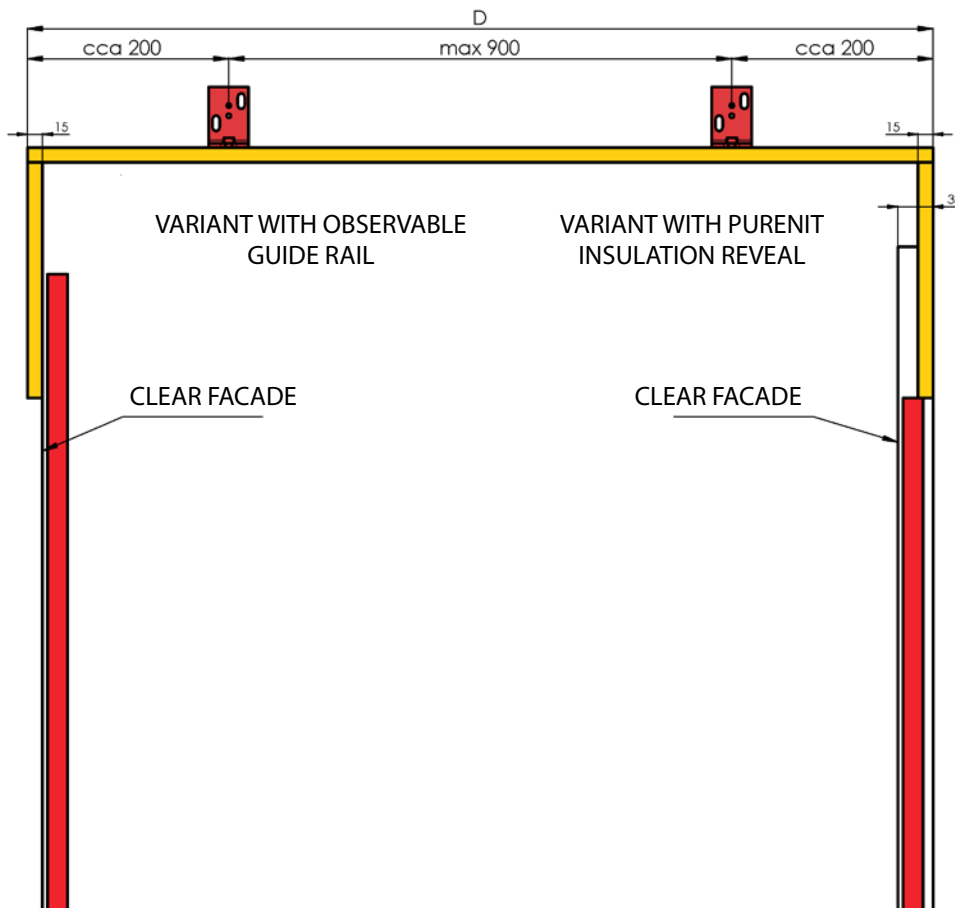
Mounting bracket

Short mounting bracket (3-04424-PU22)

Long mounting bracket (3-04425-PU22)

Longitudinal section of the box
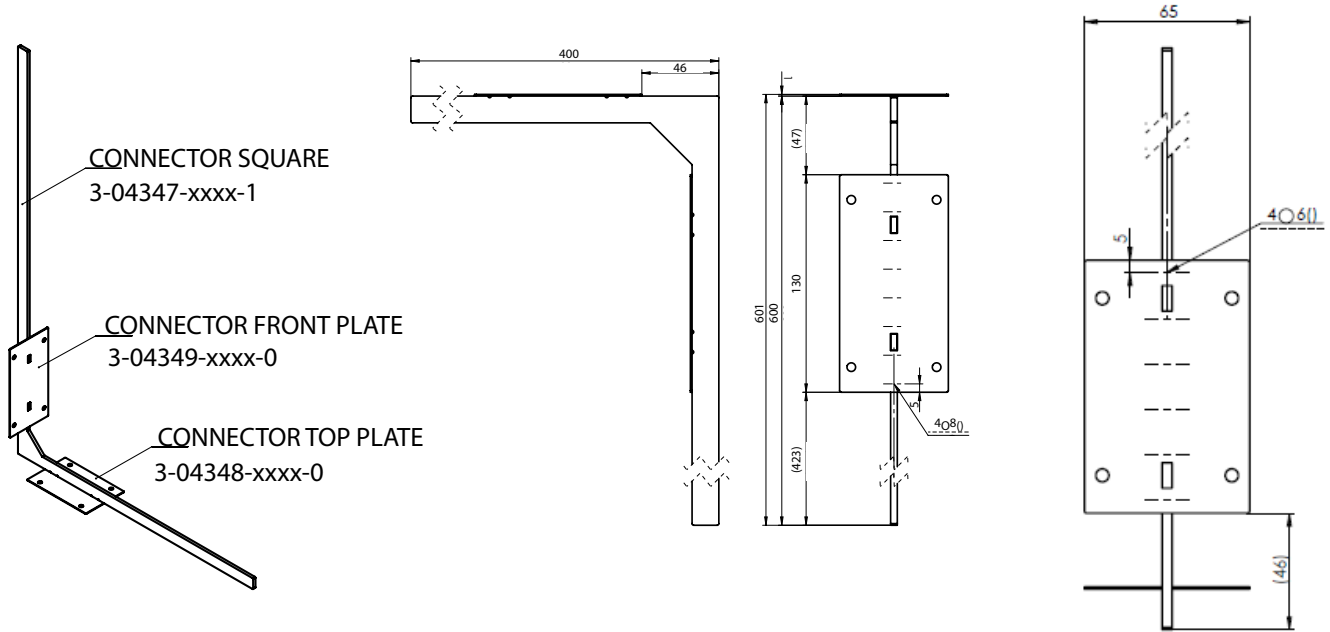
(minimum number of brackets recommended)

VARIANT WITH OBSERVABLE
GUIDE RAIL

VARIANT WITH PURENIT
INSULATION REVEAL

CLEAR FACADE

CLEAR FACADE

Connection of Purenit boxes
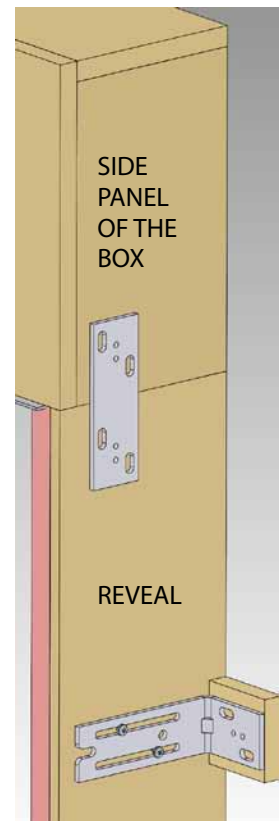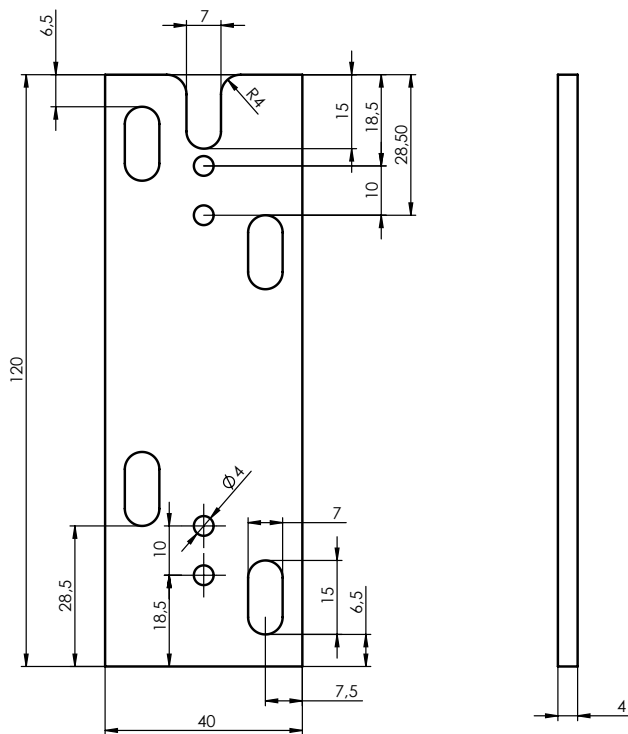
1. Longitudinal connection of the boxes

Boxes longer than 3500 mm are assembled from multiple pieces, the connection is made using a Purenit box connector. It is up to you to make decision about division of the boxes or the set. In this case, it is necessary to complete the order form with a simple drawing from the exterior, otherwise it will be automatically divided into elements 3500 mm long + an allowance for the specified dimension.

Connector for purenit boxes 2-01841-XXXX-1

CONNECTOR SQUARE
3-04347-xxxx-1

CONNECTOR FRONT PLATE
3-04349-xxxx-0

CONNECTOR TOP PLATE
3-04348-xxxx-0

2. Connecting the box to the reveal option

Connector for purenit boxes 2-01841-XXXX-1

SIDE PANEL OF THE BOX

REVEAL

Purenit insulation reveal:

Purenit insulation reveal is made of a 30 mm thick sandwich of purenit and XPS (extruded polystyrene) - 10 mm purenit as a supporting part, 20 mm XPS as insulation), the blind casing has a depth of 25 mm. The casing protrudes 5 mm from the sandwich.

Properties of the purenit reveal:
- Heat insulation – provides high heat insulation
- High strength – withstands mechanical loads
- Easy to work with – can be connected as needed

Assembly
- On brackets mechanically anchored to the window frame
- Surface gluing to vertically aligned surface of the contact insulation

Reveal limit dimensions					
Dimension A		Dimension C		Dimension B	
Min.	Max.	Min.	Max.	Min.	Max.
120 mm	3200 mm*	60 mm	200 mm	150 mm	300 mm

* This is the size of the PIO or SIO insulation reveal without the overhang of the 150 mm housing.
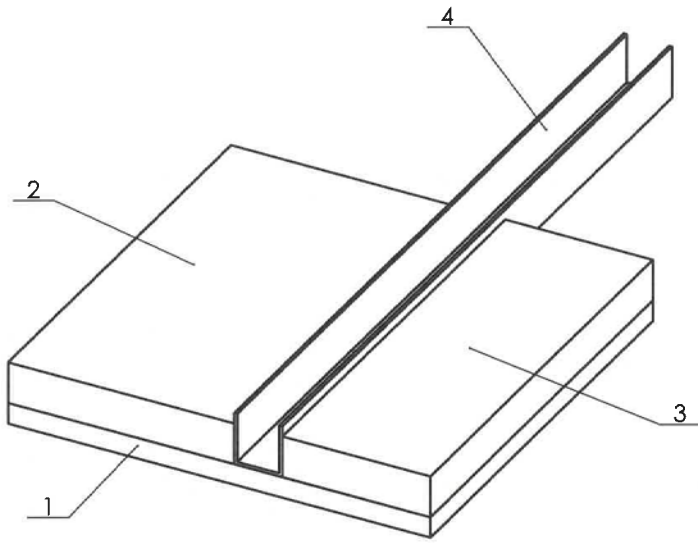
Typy ostění
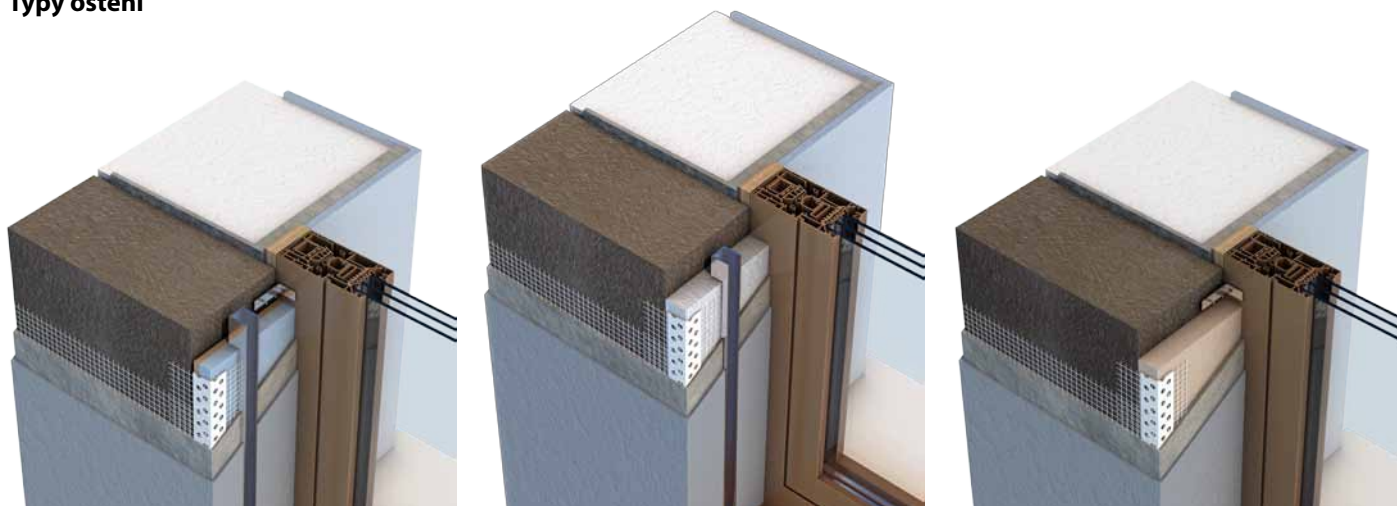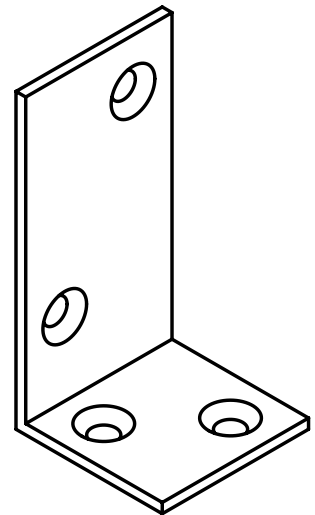

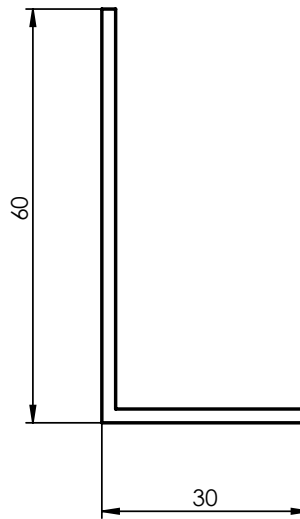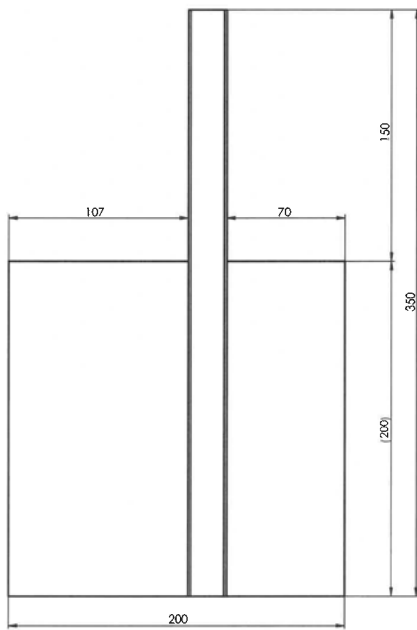PIO - Purenit insulation reveal

SIO - Polystyrene reveal
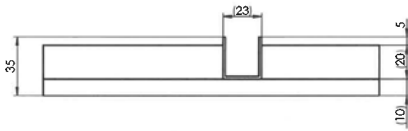
PUR - Purenit reveal

Purenit insulation reveal (PIO)
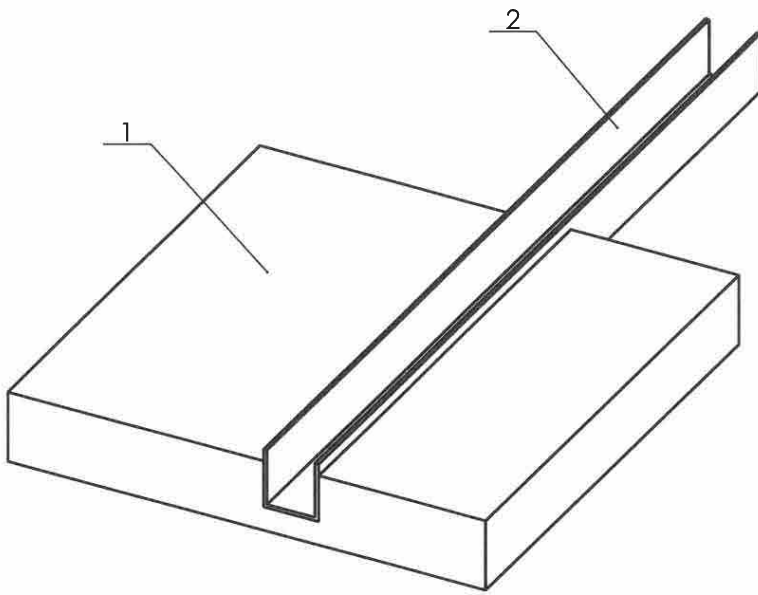
1 Purenit
2 Polystyrene foam
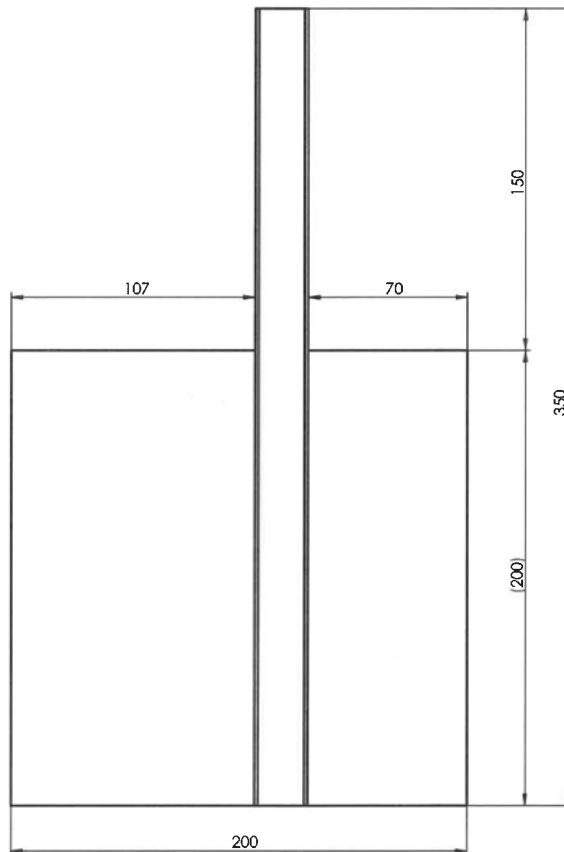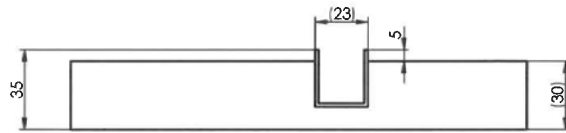3 Polystyrene foam
4 23x25 casing

Console 60x30 (3-04563-xxxx-0)
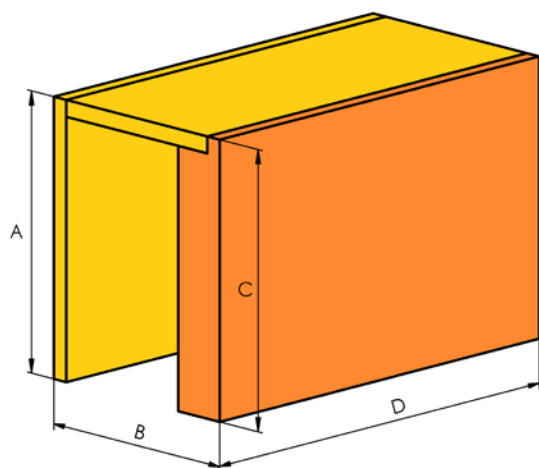
Polystyrene reveal (SIO)

1 POLYSTYRENE
2 23X25 CASING

CASINGS CAN BE STANDARDLY
FITTED WITH P018/3 INSERT
(7-302234-PU52)

Measurement and installation instructions

1. Box measurement

A - external height of the front side of the box

B - external depth of the box B =15+E+B1

C - external height of the back side of the box (may differ from A)

D - external width of the box (see fig. 2)

E - internal depth of the box (for most types of blinds it is 130 mm)

B1 - thickness of PIR insulation

External dimensions of the boxes are always measured and entered.

2. Installation of boxes

The installation may only be carried out by qualified professionals!

Construction ready for installation: fitted windows.

Inspection:

- Before installation, we recommend checking all parts upon delivery of the goods, in order to avoid possible problems. Provided there are any deficiencies or comments regarding the installation or the blinds themselves, please inform the manufacturer.

Tools for installation:

1. Spirit level
2. Pencil
3. Tape measure
4. Drilling-machine + drill bits according to the instructions
5. Hammer
6. Cordless drilling-machine
7. Bits according to the selected screws, magnetic attachment for 8 and 10 hexagonal head
8. Magnetic attachment
9. 4x15 mm screw into Purenit
10. 3x15 mm screw into Purenit
11. Diameter 10 plastic anchor, 5x60 mm screw

The system is prepared so that the base profile (and the insulation inserted in it) can cover 30 mm of the window frame from the top side.

Installation procedure:

1. Preparation

Purenit under-plaster boxes or insulation reveals are delivered wrapped in foil with position marking based on your order.
The mounting brackets together with other mounting components are packed in the box.
After unpacking, check the dimensions of the individual positions of the order.

2. Installation of the base profile

Place the profile against the window frame so that the longer side (30 mm) of the profile is in line with the upper external edge of the window frame, or adjust the height according to the agreement with the construction company. The base profile should have a distance of 15 mm on each side. In this position, attach the base profile to the window frame or base using screws.

3. Place the Purenit box on the anchored base rail, align it vertically with a spirit level.

4. Anchor the box to the base using mounting brackets

- First, anchor a bracket to the given supporting base

5. Use a spirit level to align it vertically and screw the box to the brackets.

6. Finish the installation by pulling the blinds' power cable into the box space.

• Using a 10 mm drill bit for wood or metal, drill a hole in the location where the exterior blind motor will be located. Then pull the cable through this hole into the interior of the box.

To prevent a heat bridge, we recommend placing a Purenit washer under the console foot. This washer can be ordered by adding a note to the order.
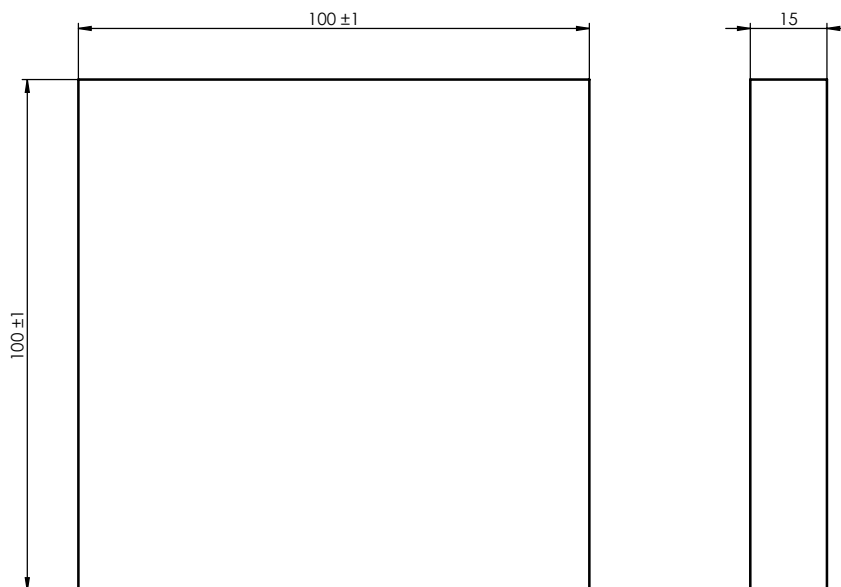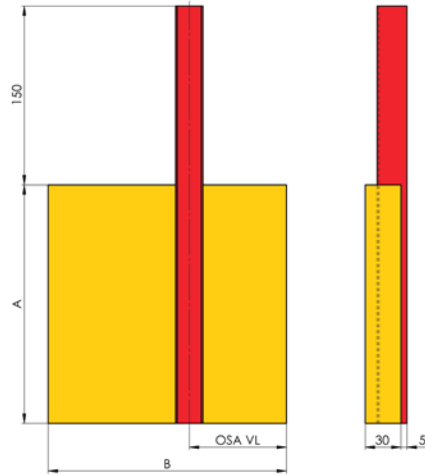

Mounting Purenit washer 3-04483-0000
We always place the console 200 mm from each edge, and the other ones evenly 500 - 600 mm from each other.

Mounting the Purenit reveal (PUR)

1. Unpack the reveal and prepare it for installation.

2. Start by installing the squares on the prepared base according to the measurements. For one reveal, use 2-3 squares depending on its length. Place the first square approximately 300 mm from the base profile. Then, place the second one approx. 300 mm from the bottom edge of the window.

3. Place the reveal on the prepared brackets and anchor with screws. Within strengthened and stabilization, you can use a spike to anchor the guide rail casing inside the box to the side panel.

As an alternative, we also offer the SIR reveal, which is made only of polystyrene with an insert for the guide rail. The installation is carried out by gluing it using foam adhesives to the prepared KZS (structural insulation system).
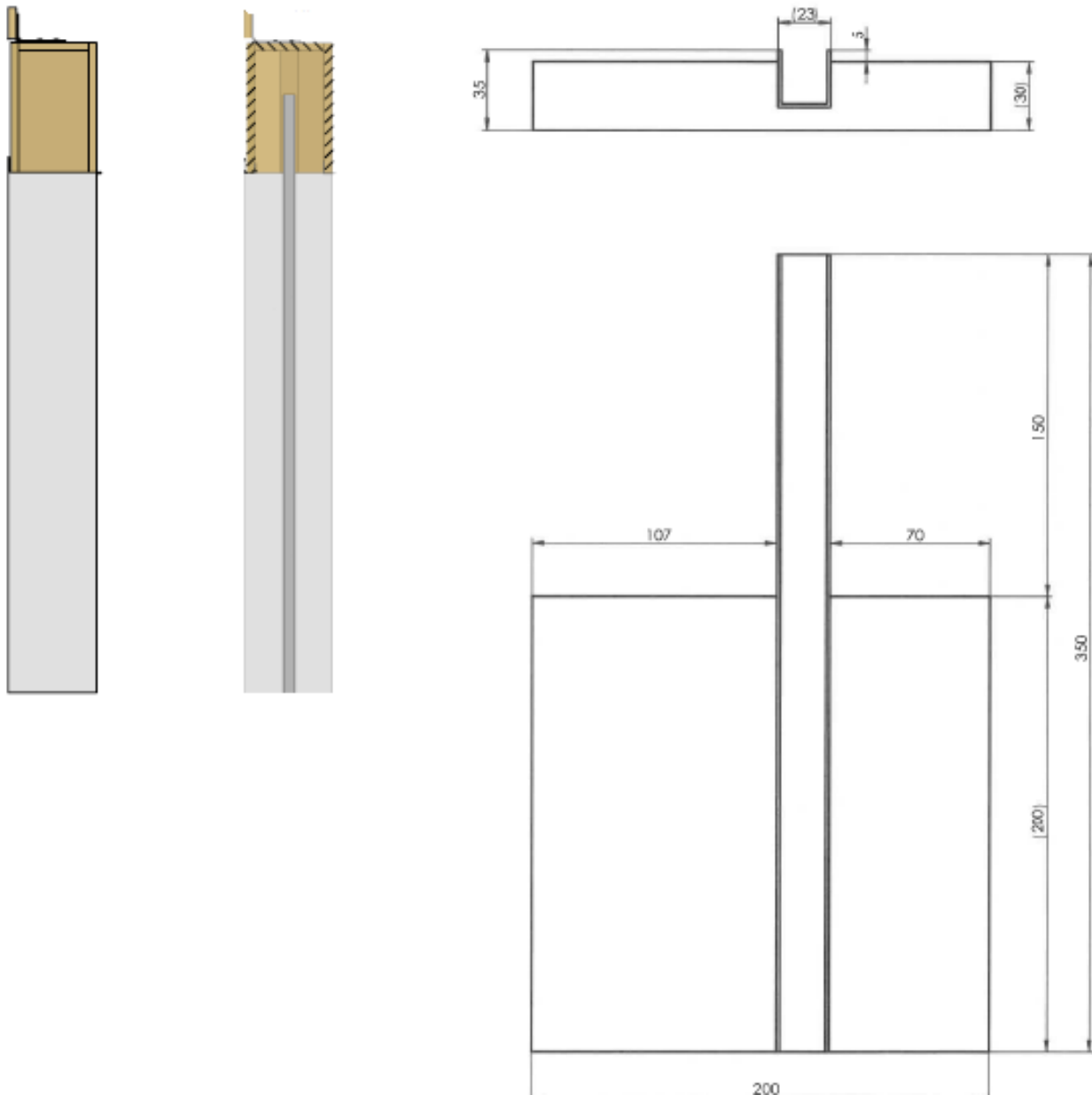
Recommendation: treat Purenit with a primer for non-absorbent surfaces before applying the façade. Do not remove the internal reinforcements of the box during installation! These reinforcements can only be removed after the box has been completely embedded in the façade when installing exterior blinds.

Installation conditions:

- The manufacturing tolerance of Purenit boxes is ± 3 mm
- Purenit boxes must be integrated into the insulation no later than 30 days after their installation.
- Boxes must not be exposed to weather conditions for a long time
- Polystyrene spacers must remain inside the box until the box is completely integrated into the facade. They will only be removed during the installation of exterior blinds.
- Before integrating the boxes into the facade, it is necessary to treat their front side with a penetration agent intended for non-absorbent surfaces or apply a contact bridge.
- In case of violation of the above conditions, it is not possible to claim for the products.

Notes:

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Notes:

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...a touch of intimacy.