

INSTRUCTIONS PANEL INSTALLATION



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PICTURE CREDITS

> alkus AG or alkus AG / Jens Ellensohn, with the following exceptions:

P. 12

> iStock, PeskyMonkey, edited

PANEL INSTALLATION



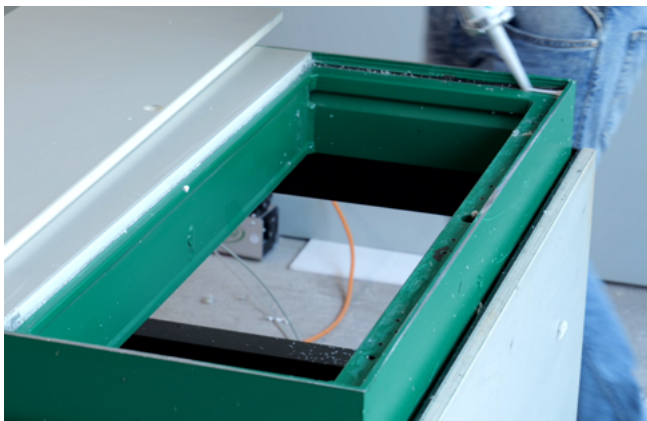
Installation
 Video: www.youtube.com/alkusAG



1

The alkus[®] solid plastic panel can be installed in any common formwork system in a few steps. For panel installation you will need the following tools:

- > Silicone gun incl. silicone
- > Riveting tool
- > Battery drill machine incl. battery
- > Spiral drill bit with rivet countersink
- > Rivets



2

Although unnecessary for panel integrity, silicone may be gunned into the corner of the contact surface of the panel formwork to prevent concrete slurry entering the area between the formwork and the panel after installation.



3

The alkus[®] solid plastic panel is positioned centrally in the panel formwork.



4

Once the panel has been aligned correctly, the rivet holes are drilled through the panel into the panel formwork. The panel is simultaneously countersunk using a 120° countersink.

- > Drill bit diameter: 5.1 mm
- > Rivet diameter – 0.1 mm

PANEL INSTALLATION



5

Steel rivets are used to fix the panel due to its extensive service life. The panel can also be screwed into position from the rear.

- > Steel rivet 5 x 20 for alkus[®] panels 6 – 10 mm thickness
- > Steel rivet 5 x 25 for alkus[®] panels 11.5 – 17 mm thickness
- > Steel rivet 5 x 33 for alkus[®] panels 18 – 22 mm thickness



6

Use a pneumatic rivet gun to fix the rivets.



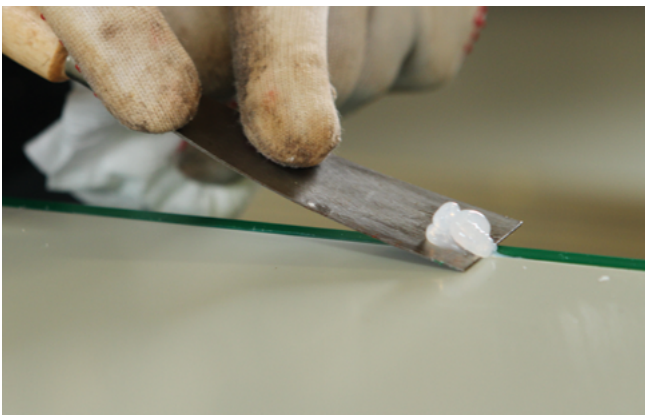
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Since the alkus[®] panel neither swells nor shrinks, it is installed 'flush' into the panel formwork. This guarantees a perfect joint pattern from the very first use.

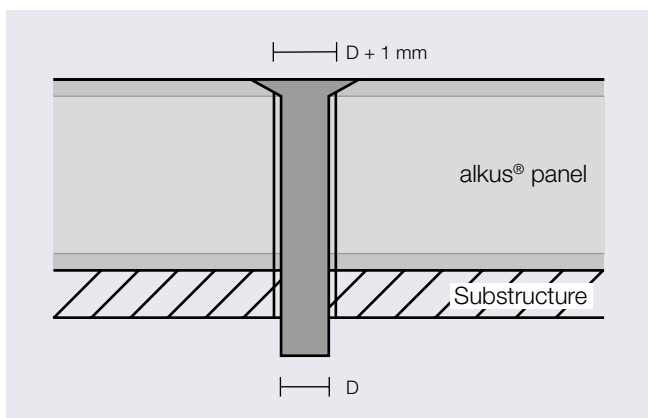
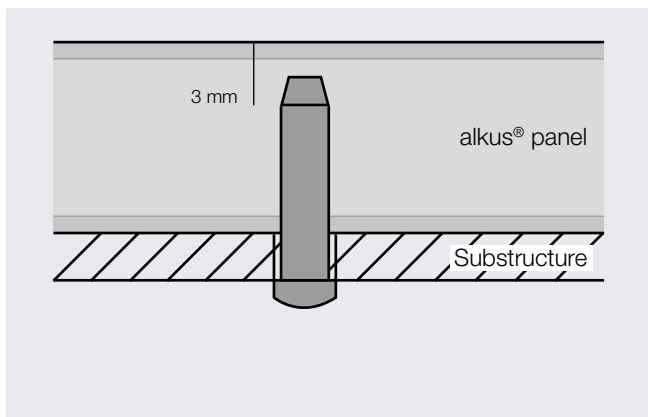
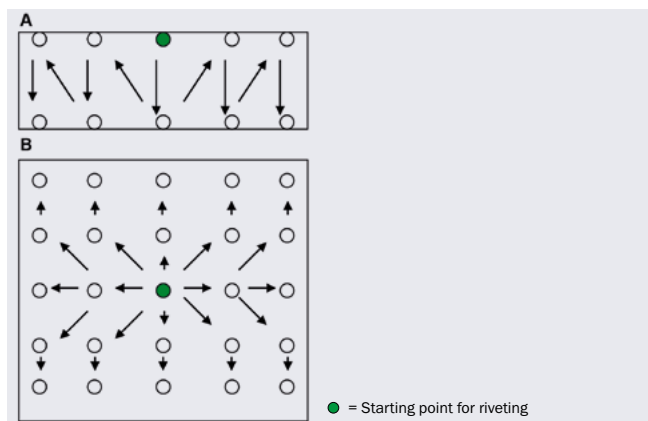
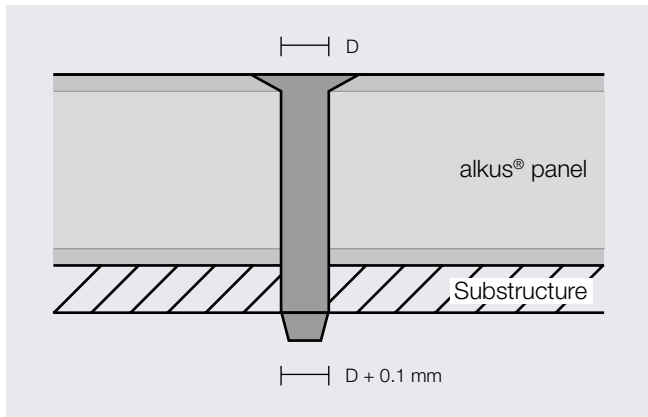
The gap between the lip of the panel formwork and the panel can be filled with silicone, but this is not absolutely necessary, as the panel does not absorb water and is resistant to moisture.

Attention:

Only use silicone if the gap is over 2 mm.
Acrylic must not be used.



FIXING



Rivets

Rivets are always inserted on the facing side. The substructure and the alkus® sheet have to be pre-drilled and countersunk. The diameter of the drill hole should equal the rivet diameter plus 0.1 mm.

Important – observe rivet length:

- > Steel rivet 5 x 20 for alkus® panels 6 – 10 mm thickness
- > Steel rivet 5 x 25 for alkus® panels 11.5 – 17 mm thickness
- > Steel rivet 5 x 33 for alkus® panels 18 – 22 mm thickness

Order of riveting steps

In order to prevent the facing from forming waves when riveting it, make sure to always rivet from the inside to the outside. See the examples in drawings A and B.

Please note:

The rivet positions shown in the drawings are only examples and do not show the real rivet positions.

Reverse fixing

If the alkus® sheet is to be reverse fixed from the frame side, a self tapping screw can be fixed using the holes in the frame. The length of the screw should be selected to prevent breaking through the face of the sheet.

Rule of thumb:

- > Thickness of substructure + thickness of alkus® sheet – 3 mm.

Screwing the panels from the front face

When the alkus® panel is fixed with screws, the facing needs to be pre-drilled and countersunk – the diameter of the drill hole has to be approx. 1 mm wider than the screw diameter. Screws that are appropriate for the frame should be selected.

SILICON APPLICATION

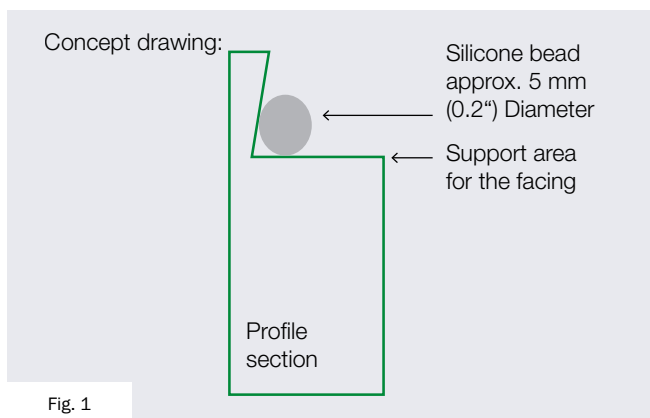


Fig. 1

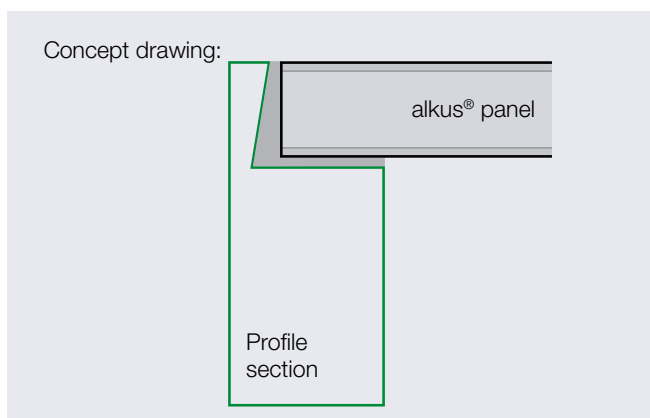


Fig. 2

Please note that silicone is applied to the frame profile before installing the alkus[®] panel. A silicone strand with a diameter of approx. 5 mm should be applied uninterrupted around on all 4 sides. See Figs. 1 and 2.



If there is a gap between the panel and the frame lip ≥ 2 mm, alkus[®] recommends filling it with silicone for optical reasons and for an optimal concrete surface.



Note:

The adhesion properties of silicone to alkus[®] (a polypropylene material) and any powder-coated frame are rather low. Therefore a "wet-on-wet silicone" application is recommended. The result is an "L" of silicone that is trapped under the alkus[®] panel which improves adhesion.

GENERAL INFORMATION FOR THE ASSEMBLY OF alkus[®] PANELS



5.1 mm drill bit with countersink

- > Spiral drill bit Ø=5.1 mm
- > Countersink for rivet holes
- > Adjustable collar for countersink

Alternatively, the rivet holes can be drilled in 2 steps using a standard 5.1 mm (0.2") drill bit and a 120° countersink.



Rivet gun

For installation using rivets alkus[®] recommends to use an electric or pneumatic rivet gun.



Pneumatic silicone gun

Alternatively, you can apply the silicone using a standard silicone gun.

INSTALLING alkus[®] SEALING CONE IN PERI MAXIMO FORMWORK



1

Start by punching out the rivets of the old panel and cleaning the formwork system.



2

The alkus[®] XT adapter serves as a guide for all standard elements*. It is essential to remove all PERI rubber inserts from the formwork system.

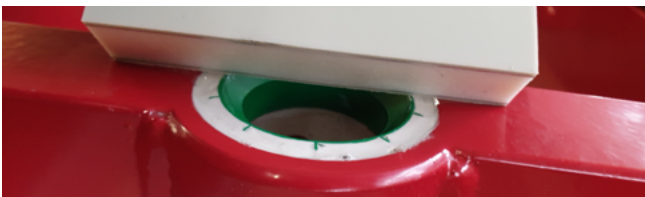
*For all MX elements – not for corners and multi-purpose elements!



3

The next step involves gluing the alkus[®] XT adapter flush to the surface with standard silicone.

It is important that the adapter does not protrude!



4

Now install the panel in the formwork system. When doing so, make sure the silicone is pressed into the corners of the formwork system.



INSTALLING alkus[®] SEALING CONE IN PERI MAXIMO FORMWORK



5

Then place the panel in the formwork system, drill the rivet holes and secure the panel with steel rivets.



6

Now insert the alkus[®] sealing cone. The sealing cone is simply inserted by hand with very little force.

Tools are not required!



Should the sealing cone ever need replacing, lever it out with a screwdriver.

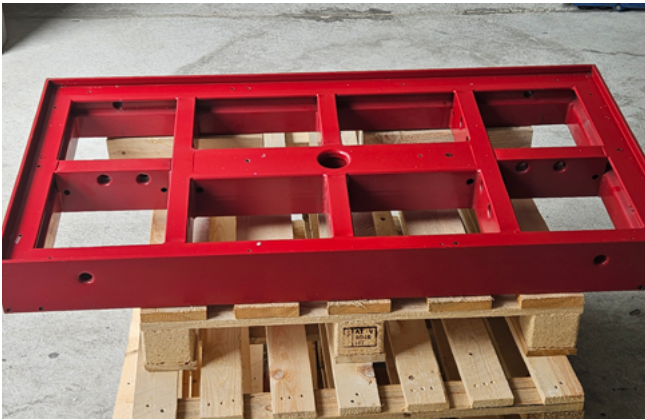


7

The formwork system is now ready for use with the alkus[®] panel.



INSTALLING AN alkus[®] FORMWORK FACING IN A PERI MX FORMWORK WITH THE alkus[®] STEEL INSERT



1

First, the old panel has to be removed and the MX frame cleaned.



2

To install the alkus[®] panel, silicone must be applied inside of the frame and around the anchor holes.



3

The steel inserts are inserted on the back of the panel.



4

In the next step, the alkus[®] panel is placed into the frame and the rivet holes are pre-drilled with the alkus[®] countersink drill.

INSTALLING AN alkus® FORMWORK FACING IN A PERI MX FORMWORK WITH THE alkus® STEEL INSERT

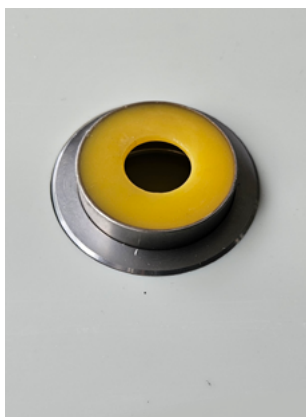
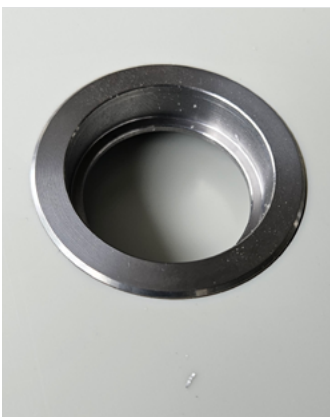


5

The alkus® steel rivets 5x33 are used to rivet the panel flush with the frame.

6

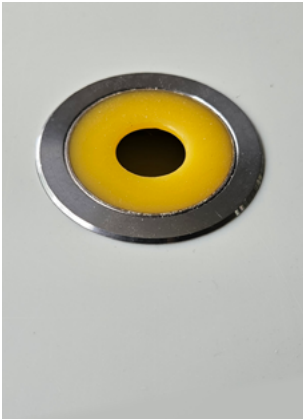
The panel installation is now completed.



7

Once the silicone has hardened, the sealing ring can be driven in with a hammer.

INSTALLING AN alkus[®] FORMWORK FACING IN A PERI MX FORMWORK WITH THE alkus[®] STEEL INSERT



8

The alkus[®] steel insert is also compatible with the original Peri sealing inserts (MX15 or MX18).



9

The frame is ready for use on the construction site.

alkus[®] | innovative systems

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