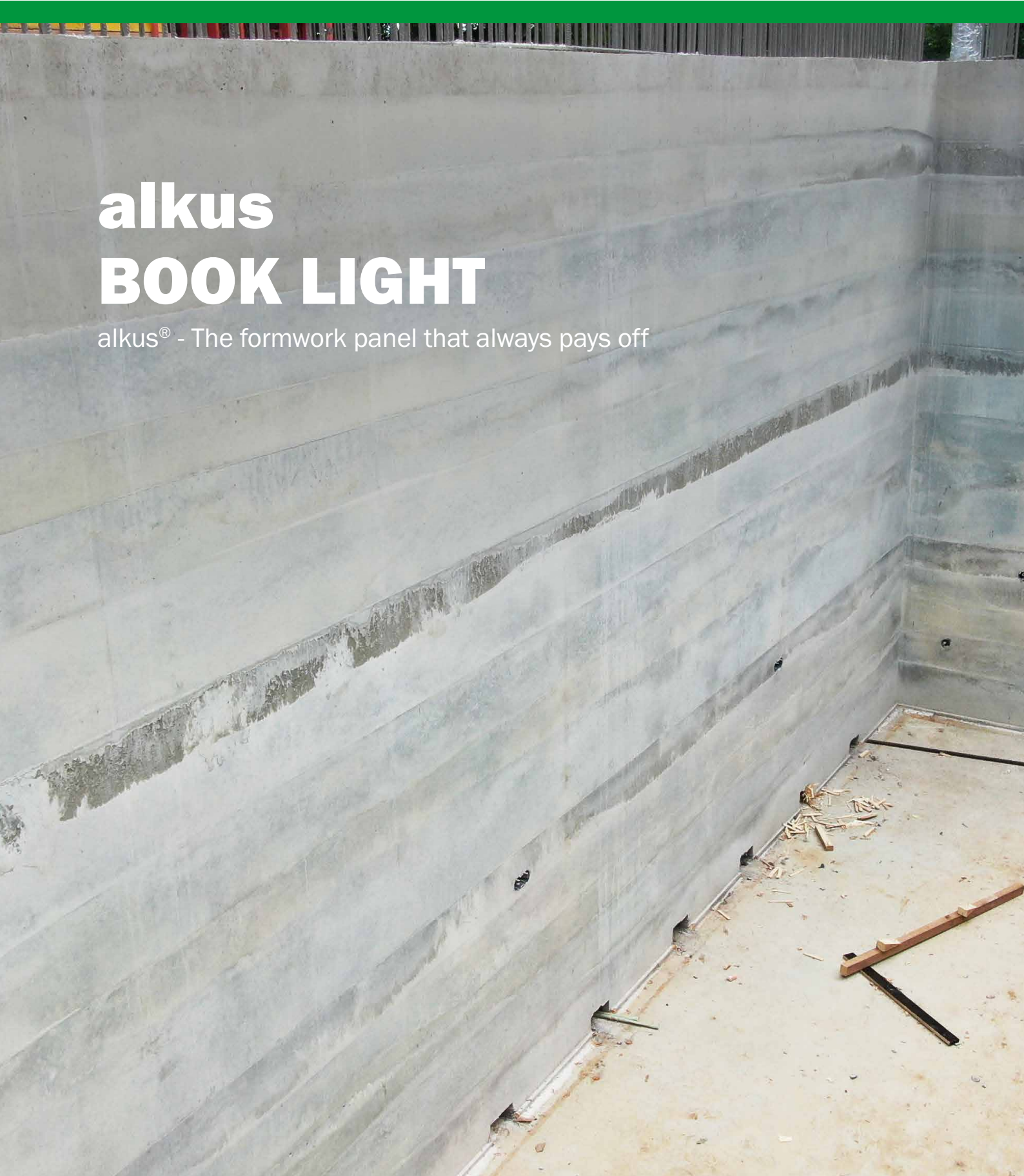


# alkus BOOK LIGHT

alkus<sup>®</sup> - The formwork panel that always pays off







Construction site ABMC visitor centre in Margraten (NL)

# CONTENT

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You can find videos and instructions on our  
YouTube channel.







Office and commercial building Tic Tric Trac in Zurich

## MASTERING THE PRESENT – SHAPING THE FUTURE

# alkus AG MISSION STATEMENT

### VISION

We want to be THE partner of choice for all formwork manufacturers and formwork systems worldwide.

### MISSION

Our mission is to make formwork more economical and sustainable while ensuring the best possible concrete results.

### VALUES

#### QUALITY

We are driven by our passion for quality.

Uncompromising quality is the basic principle upon which all our products are based.

We are convinced that our core product – the alkus® solid plastic panel – is the best product to be used in panelized formwork systems available today. This allows us to make our customers more successful.

In addition to our products, we also provide our customers with expert advice, sales and service.

#### CUSTOMER ORIENTATION

Satisfied customers are our priority.

Honesty and reliability are the principles upon which we build our customer relationships.

Commitment and lots of passion ensure we are the ideal partner for our global customers. Furthermore, we have the right solutions for demanding formwork projects.

Our qualified team always listens and responds to individual needs and new ideas.

#### SUSTAINABILITY

We live and breathe sustainability.

At alkus AG, we believe sustainability is more than just about being green today, tomorrow and in the future.

The alkus® solid plastic panel lasts for many years. This helps to save natural resources and is also economically more sustainable – a guaranteed benefit for our customers.

The same can be said about the relationships with our employees, partners and customers, where we do not seek short-term profit but are committed to the lasting success of everyone involved.

#### RESPECT

Respect defines our relationships.

We treat colleagues, partners and customers with the same respect that we want for ourselves.

As an international brand, we value other nationalities and cultures and the added value that different perspectives bring to our company and our customers.

The fair treatment of individuals, mutual support and an open exchange of views are central to our corporate culture.

**LONG-TERM PARTNER FOR YOUR FORMWORK**

# **THE alkus<sup>®</sup> FORMWORK PANEL**

**More than 1,500 uses.**

**An enduring companion for your building projects.**



# alkus<sup>®</sup> SOLID PLASTIC PANELS

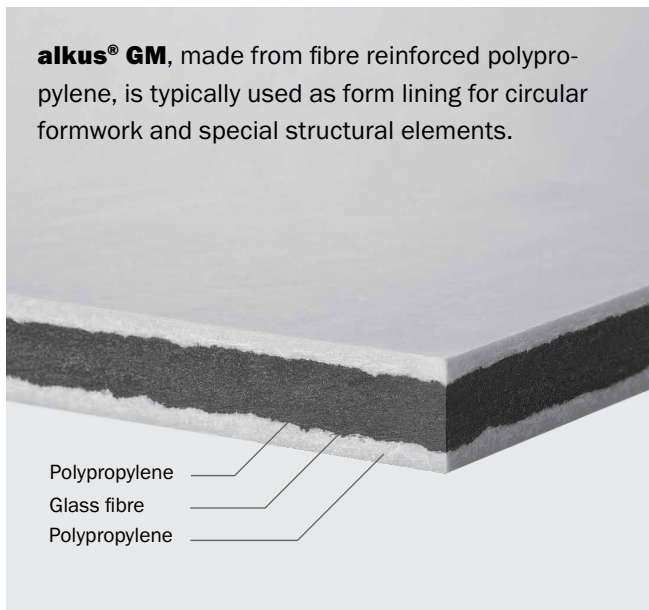
# THE CLEVER CHOICE

alkus<sup>®</sup> solid plastic panels are constructed of extremely durable plastic composite – and are therefore a cost-effective choice for concrete formwork. The patented sandwich panel is extremely robust and resistant to all weather conditions, thus guaranteeing outstanding concrete quality.

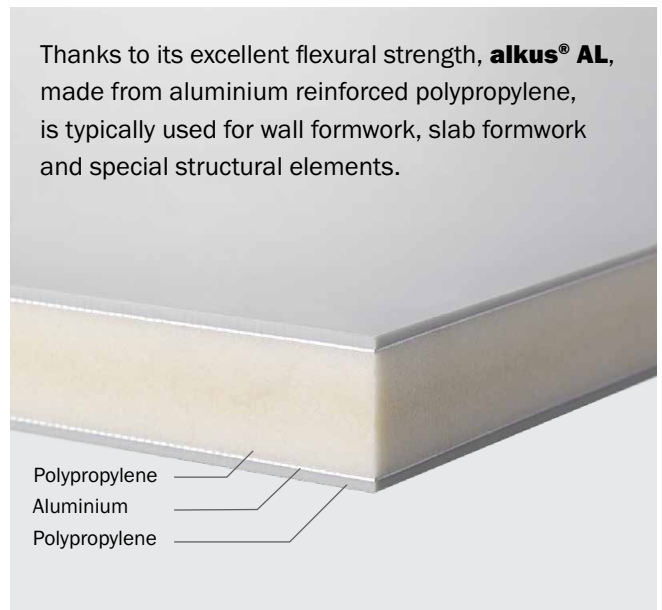
## alkus<sup>®</sup> solid plastic panels are available in two styles

Knowing which one is right for your demands depend on the actual requirements of the formwork. Let us help you with our experience and knowledge.

**alkus<sup>®</sup> GM**, made from fibre reinforced polypropylene, is typically used as form lining for circular formwork and special structural elements.



Thanks to its excellent flexural strength, **alkus<sup>®</sup> AL**, made from aluminium reinforced polypropylene, is typically used for wall formwork, slab formwork and special structural elements.



alkus<sup>®</sup> in use:  
Video: [www.youtube.com/alkusAG](http://www.youtube.com/alkusAG)



# 7 YEARS LONG-TERM WARRANTY

## ON THE 100 % WOOD-FREE alkus® SOLID PLASTIC PANEL

### Guaranteed unrestricted use with:

**> Warranty against rotting**

alkus® solid plastic panels do not absorb water, do not swell and do not rot.

**> Warranty against surface shape irregularities**

alkus® solid plastic panels are resistant to rippling and warping.

**> Warranty against discolourations**

alkus® solid plastic panels do not cause any formwork skin-related discolouration on the concrete surface.

**> Warranty against delamination**

alkus® solid plastic panels enable perfect formworking without panel delamination.

**> Warranty on bending stiffness**

alkus® solid plastic panels remain rigid and permanently resilient, maintaining a consistently high elastic modulus.

**> Warranty on UV resistance**

alkus® solid plastic panels are resistant to weather-related UV radiation and rain.

alkus® solid plastic panels are 100 % wood-free, environmentally friendly during their production and processing and they are recyclable. All production-related residual materials flow into the respective recyclable waste material cycle.





## Warranty terms:

### Period of validity

The alkus® long-term warranty on the alkus® solid plastic panel is valid for a maximum period of seven (7) years starting from delivery or receipt confirmation by the original user of the alkus® panel. The warranty is not extended by any warranty claims invoked.

### Scope of warranty

The alkus® long-term warranty on the alkus® solid plastic panels guarantees the original user the right to functional formwork panels for normal use in construction. The warranty applies exclusively to the performance characteristics of the alkus® solid plastic panel as defined in the warranty terms. The statutory warranty rights (subsequent performance, withdrawal, damages, reduction) shall not be affected by this warranty. For the duration of the warranty, any defects in the product that can be proven to be due to a material or manufacturing defect shall be remedied. alkus AG undertakes to repair the defective goods at its own discretion, to replace them with defect-free goods or to refund the loss in value. The warranty claim exists only for damage to the object of the contract itself.

### Warranty prerequisites

The prerequisite for a warranty claim is that an invoice from an authorized alkus® supplier is presented when the warranty claim is made. If a defect should occur, it must be reported to the supplier in writing within one month of the defect becoming apparent. The invoice and delivery note of the authorized alkus® supplier are proof of your warranty claim.

### Warranty exclusion

The alkus® long-term warranty applies exclusively to the use of the solid plastic panels as formwork facing. Excluded in any and all cases are the following:

- > Claims for damages or consequential costs derived therefrom
- > Expenses for removal and installation
- > Improper, non-intended usage and atypical operation
- > External violent influences, abnormal environmental conditions, mechanical damage and negligent or wilful destruction
- > Non-observance of the instructions for use or unauthorized actions by the customer to the product
- > Use of non-original alkus® accessories and tools



Housing complex in Helsinki

# INSTRUCTIONS

**13 INSTALLATIONS**

**17 REPAIR**

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# INSTALLATION

## 14 PANEL INSTALLATION



panel installation  
video: [www.youtube.com/alkusAG](https://www.youtube.com/alkusAG)



# INSTALLATION



## 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



## 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.



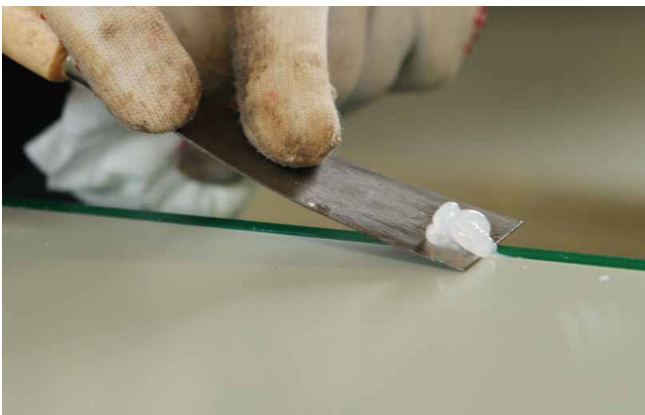
### 7

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.





# REPAIR

**18 ANCHOR HOLE REPAIR**

**21 SCRATCH REPAIR**

**23 HOLE REPAIR WITH PATCHES**

**26 HOLE REPAIR WITH PLUGS**



Repair  
video: [www.youtube.com/alkusAG](https://www.youtube.com/alkusAG)





# ANCHOR HOLE REPAIR



## 1

For anchor hole repair, you will need the following tools:

- > Welding device
- > Paint stripper
- > Scraper
- > Alu-cone
- > AS-conical tube
- > Paint scraper



## 2

First, the damaged area has to be cleaned of dirt using the scraper.



## 3

Depending on the desired diameter, insert the alu-cone or the AS-conical tube into the anchor hole.



## 4

In the next step, preheat and weld the anchor hole around the cone using the welding device.

## ANCHOR HOLE REPAIR



**5**

Allow the welded area to cool for approx. 2 minutes.



**6**

After cooling, remove the cone.



**7**

Remove the excess material with the paint stripper.



**8**

In the final step, to achieve a smooth surface strip the repaired area with the scraper and the paint scraper.

## ANCHOR HOLE REPAIR



**9**

In just a few steps, the alkus® solid plastic panel is ready for use again.



# SCRATCH REPAIR



## 1

For scratch repair you will need the following tools:

- > Welding device
- > Paint stripper
- > Scraper
- > Paint scraper



## 2

First, clean the scratch from dirt using the scraper.



## 3

Then, weld the scratch with the welding device after preheating.



## 4

Allow the welded area to cool for approx. 2 minutes.

## SCRATCH REPAIR



**5**

After cooling down, remove the excess material with the paint stripper.



**6**

Smooth the repaired area with the paint scraper.



**7**

The alkus® solid plastic panel is repaired to a seamless state in just a few minutes and ready for use.

# HOLE REPAIR WITH PATCHES



## 1

For hole repair with patches you will need the following tools:

- > Battery drill machine incl. battery
- > Welding device > Paint stripper
- > Plastic-hammer 50 mm
- > Cylinder head drill 35.5 mm or 49.5 mm
- > Patches 35.5 mm or 49.5 mm
- > Centering panel GM > Paint scraper



## 2

First, drill a hole using the cylinder head drill.

### Note the information on the diameter:

**35.5** Drilling without a centering panel is possible for holes with a diameter of up to max. 13 mm, with the centering panel up to max. 25 mm.

**49.5** Drilling without a centering panel is possible for holes with a diameter of up to max. 22 mm with the centering panel up to max. 40 mm.



## 3

For assistance during drilling, use the centering panel: it is secured to the alkus<sup>®</sup> panel with nails.



## 4

Drill a hole using the battery drill machine. Drilling depth adjustment:

### Drilling depth adjustment:

#### Without centering panel:

Set the stop flush with the milled notch on the drill bit.

#### With centering panel:

Adjust the stop backwards by 6 mm.



## HOLE REPAIR WITH PATCHES



**5**

After drilling the hole remove the centering panel.



**6**

Insert the patch and drive it in with the plastic-hammer into the hole.



**7**

Subsequently, preheat and weld around the patch using the welding device.



**8**

Allow the welded area to cool for approx. 2 minutes.

## HOLE REPAIR WITH PATCHES



**9**

After cooling, remove the excess material with the paint stripper.



**10**

In the final step, to achieve a smooth surface strip the repaired area with the paint scraper.



**11**

In just a few steps, the alkus<sup>®</sup> solid plastic panel is ready for use again.

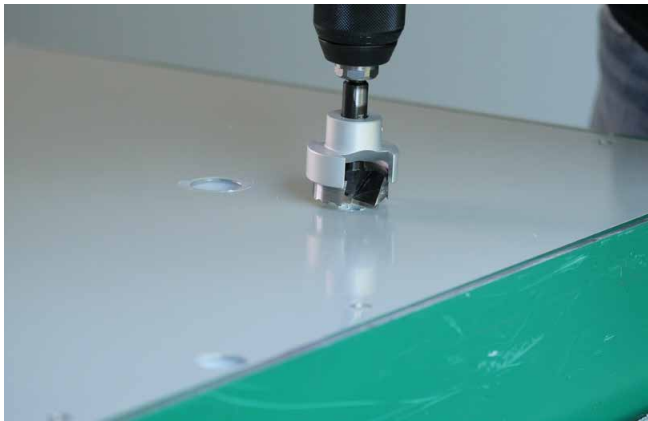
# HOLE REPAIR WITH PLUGS



## 1

For plug repair, you will need the following tools:

- > Battery drill machine incl. battery
- > Plastic-hammer 50 mm
- > Cylinder head drill 35.5 mm or 49.5 mm
- > Centering panel GM
- > Plugs 35.5 mm or 49.5 mm
- > Paint scraper



## 2

First, drill a hole using the cylinder head drill.

### Note the information on the diameter:

**35.5 mm** Drilling without a centering panel is possible for holes with a diameter of up to max. 13 mm, with the centering panel up to max. 25 mm.

**49.5 mm** Drilling without a centering panel is possible for holes with a diameter of up to max. 22 mm with the centering panel up to max. 40 mm.



## 3

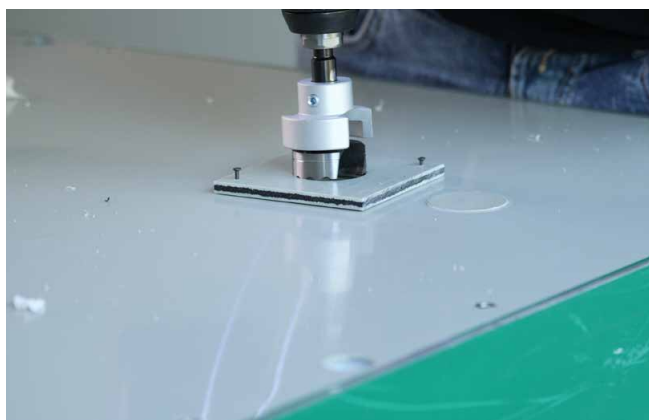
Then, insert a plug into the pre-drilled hole and drive it in with the plastic-hammer.



## 4

For assistance during drilling, use the centering panel: it is secured to the alkus® panel with nails.

## HOLE REPAIR WITH PLUGS



**5**

Pre-drill the hole for the plug and then remove the centering panel.

**Drilling depth adjustment:**

**Without centering panel:**

Set the stop flush with the milled notch on the drill bit.

**With centering panel:**

Adjust the stop backwards by 6 mm.



**6**

Here again, insert the plug and drive it in with the plastic-hammer.



**7**

Remove the excess material with the paint scraper. If needed, the paint stripper can be used additionally.



**8**

In just a few steps, the alkus<sup>®</sup> solid plastic panel is repaired and ready for use without any loss of quality.







# CLEANING

**30 CLEANING WITH THE HIGH PRESSURE WASHER**

**31 CLEANING WITH THE ROTATION CLEANER**



Cleaning  
video: [www.youtube.com/alkusAG](https://www.youtube.com/alkusAG)



# CLEANING: HIGH PRESSURE WASHER



**1**

The alkus® solid plastic panel can be cleaned with a high pressure washer.



**2**

Up to 1000 bar / 14,500 psi



**3**

Minimum distance: > 30 cm (1') max. 1000 bar (14500 psi)

Additionally, a 'dirt blaster' or rotary nozzle is recommended.

**Note:**

If damage is caused to the alkus® panel by high-pressure cleaning, then the spraying pressure or the distance must be adjusted.

# CLEANING: ROTATION CLEANER



## 1

For cleaning with the rotation cleaner cleaning pads and abrasive cleaning grit are used in combination. Depending on the degree of soiling, abrasive cleaning grits in various sizes are used.

- A** Drive disc for alkus cleaning device
- B** Cleaning pad
- C** Abrasive cleaning grit
- D** Additonal weight



## 2

The process is made more efficient by applying additional weight.



## 3

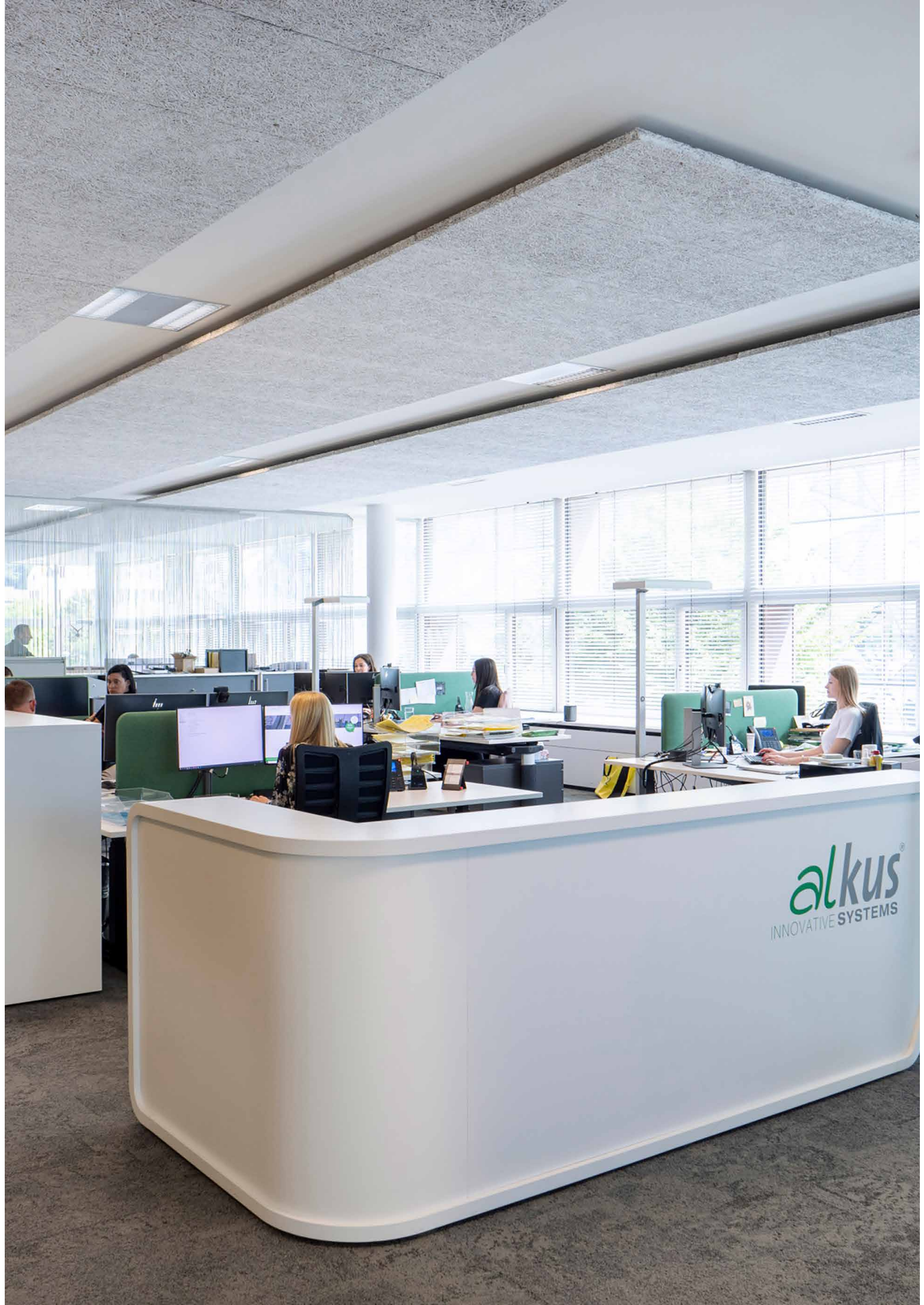
In order to flush off the abrasive material and dirt out of the cleaning area and to keep the cleaning pad and abrasive cleaning grit free of build-up, it is recommended to rinse with water. Cleaning not only removes dirt and concrete residues, it also smoothes nail and scratch protrusions.



## 4

A further positive effect is the polishing of the alkus® surface, which then results in reduced concrete adhesion when stripping the formwork. As a final step, the dirty water is drawn off with the water squeegee.





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Feel free to contact us or visit our website for further information. We look forward to your telephone call and your inquiry!

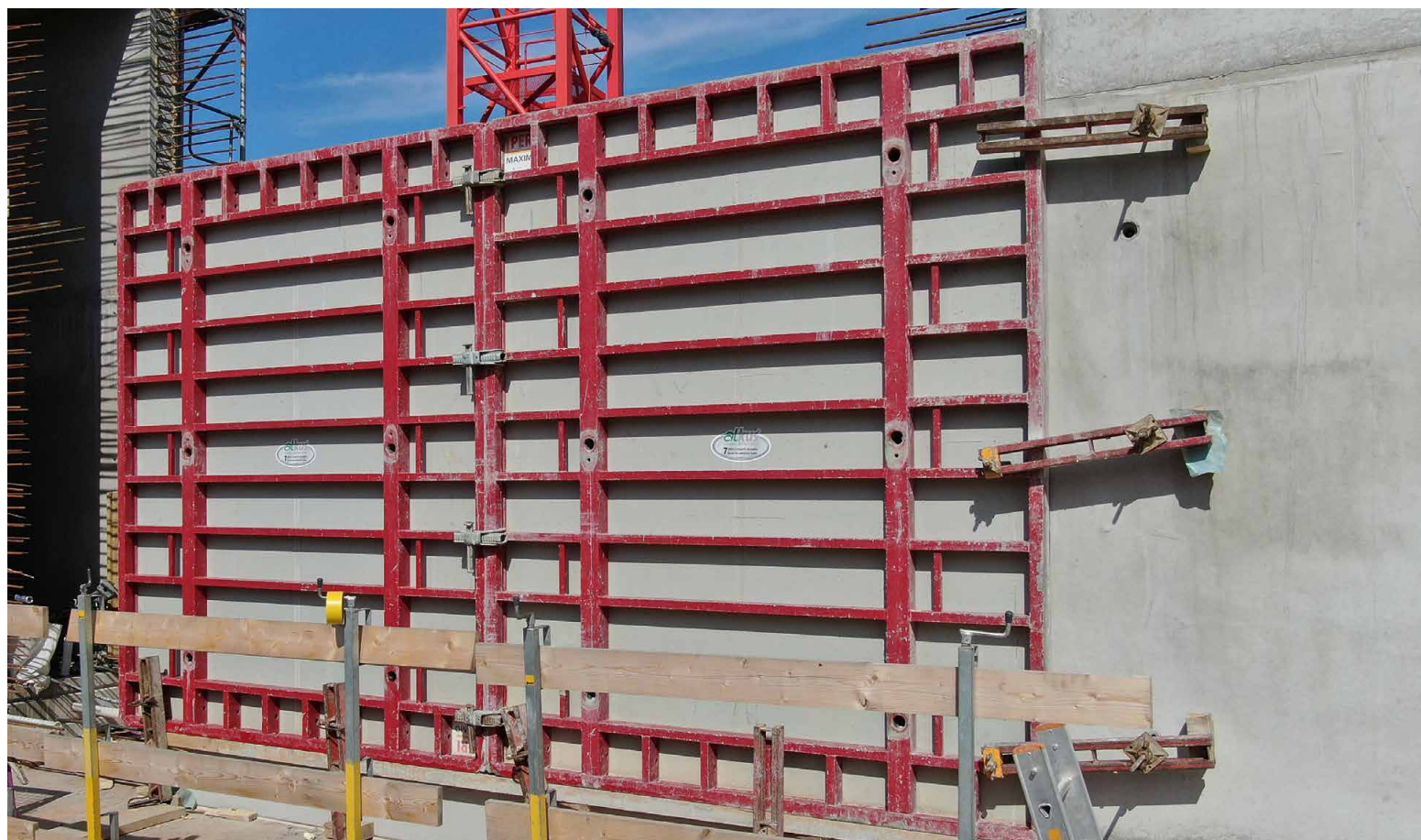
[www.alkus.com](http://www.alkus.com)







Project Olma Neuland in St. Gallen, Switzerland





# PICTURE CREDITS

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

**P. 10**

> Concrete plant Rieder

**P. 33**

> Wohnfloor Vertriebs Ges.m.b.H. (above)



**alkus<sup>®</sup> | innovative systems**

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