



**alkus**<sup>®</sup>

**A WORTHWHILE  
INVESTMENT**

The formwork panel that always pays off

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## ABOUT THE COMPANY

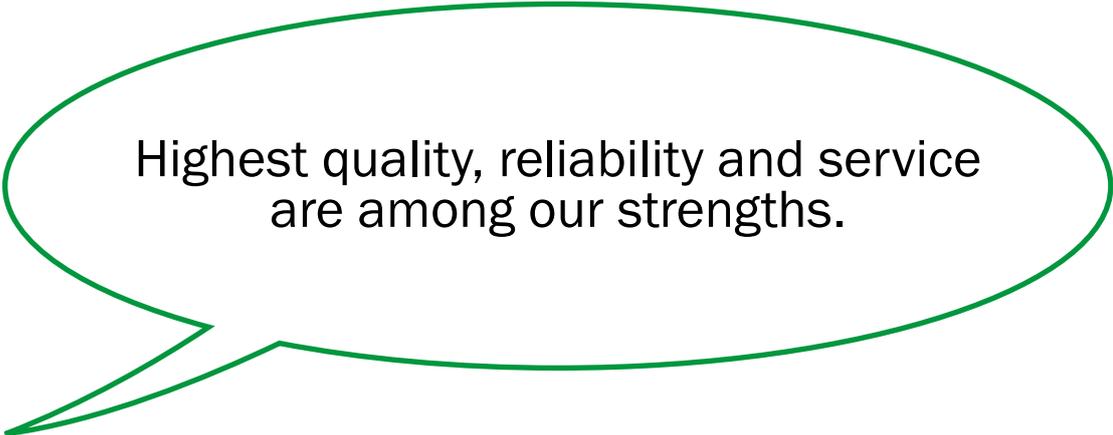
# alkus AG IN LIECHTENSTEIN

**Founded in 2000, alkus AG is an internationally active trading and service company with its registered office in Vaduz (Liechtenstein). The company sells innovative solutions revolving around the alkus<sup>®</sup> solid plastic panel that has become known worldwide primarily through its use as a formwork panel for concrete work.**

alkus AG sells alkus<sup>®</sup> solid plastic panels as well as various accessories and offers customers technical support and numerous services.

In addition to alkus AG, the alkus group of companies includes alkus GmbH & Co. KG, which is headquartered in Germany and responsible for technical development, and alkus North America Inc. (Sales and Marketing USA) based in Islandia.

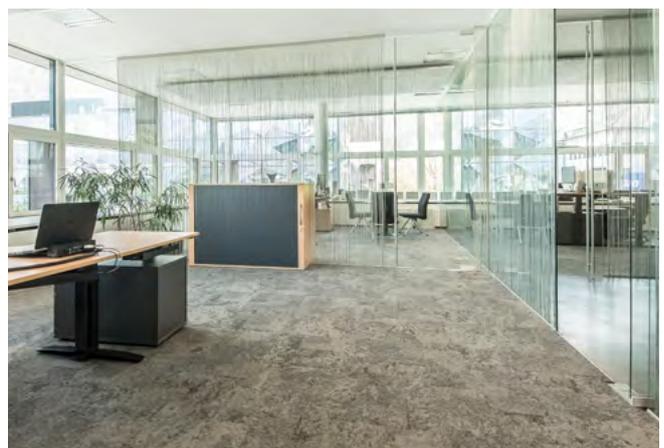
alkus collaborates with several European companies as contractual partners in the production of solid plastic panels, including a world market leader in plastic composite materials. alkus AG has been a manufacturer since 2016 and operates its own production facility in the Czech Republic.



Highest quality, reliability and service  
are among our strengths.

**ABOUT THE COMPANY**

# **THE PIONEER IN THE FIELD OF PLASTIC FORM- WORK PANELS**



## ABOUT THE COMPANY

As early as the 1980s, alkus started to deal with the disadvantages and problems of plywood products used in the construction industry. This was due to the fact that the service life of plywood formwork panels is severely limited by mechanical stress, the effects of water and chemicals as well as weather influences.

From the very beginning, alkus has therefore sought an alternative that not only avoids the disadvantages of a plywood formwork panel, but also offers practical added value.

### Many years of research and development work

What followed was years of research and development with an uncompromising focus on quality. In the mid-1980s, we took the first steps towards testing alternatives to plywood formwork panels. The years 1990 to 1995 were devoted to research, development and testing of plastic sheets with various filler materials. From 1995 to 1997, a consortium of several research institutes and industrial companies developed an all-plastic panel as a composite construction made of polypropylene and aluminium or glass fibre.

In 1998, the alkus® solid plastic panel was presented to a wider specialist audience for the first time at the bauma trade fair and in the same year alkus GmbH & Co. KG acquired the worldwide patents. alkus AG was founded in 2000, the alkus® solid plastic panel reached market maturity and went into series production.

### Superior material properties of alkus® solid plastic panels

The alkus® solid plastic panel is a plastic sandwich panel with a foamed plastic core and plastic cover sheets applied on both sides as well as intermediate reinforcement material made either of aluminium or glass fibre. The alkus® polypropylene panel is much more robust than a plywood formwork panel – with the added advantage of being easy to form and repair without loss of quality.

However, the alkus® board is not just convincing when directly compared with plywood panels, it also has significantly better product features than plastic panels from other manufacturers. For example, each individual alkus® board can be reused up to 1,500 times or more.

### Thousandfold tried-and-proven technology

Since its market launch, the alkus® solid plastic panel has proven itself in thousands of applications. In the year 2000, the formwork system manufacturer MEVA was the first industrial user to start incorporating alkus® solid plastic panels in its formwork systems. Ever since then, MEVA has been using our panels as their standard worldwide. Because the alkus® panel fits into any frame system, more and more construction companies are opting for this economical and practical solution.

Today, alkus® solid plastic panels are not only used for standard applications such as wall and slab formwork, but also for special formwork of all kinds, ranging from tunnel construction and civil engineering to the manufacture of pre-cast concrete elements. In addition, since 2007 alkus has been issuing a 7-year long-term warranty on its formwork panels – it is the first manufacturer in the world to do so.



Management System  
ISO 9001:2015

www.tuv.com  
ID 9108613837

### Certified quality

Our quality management and production processes are certified according to DIN-ISO 9001-2008. For our customers, this means controlled, consistent quality.

## PRODUCTION

# HOW **alkus**<sup>®</sup> SOLID PLASTIC PANELS ARE MANUFACTURED

### **alkus AG**

alkus AG is the sales and marketing company of the alkus Group. alkus AG supplies customers worldwide with the high-quality alkus<sup>®</sup> solid plastic panel, including all application, cleaning and repair accessories. These customers are mainly formwork system manufacturers and rental companies, precast companies and construction companies. alkus<sup>®</sup> solid plastic panels are manufactured at two production sites.

### **alkus development company**

alkus has its own development company, which was originally responsible for developing and patenting the alkus<sup>®</sup> solid plastic panel. alkus develops processes for the application of alkus<sup>®</sup> panels in special projects as well as for cleaning and repair activities. The alkus<sup>®</sup> solid plastic panel can be repaired using identical material.

### **Production for any formwork system**

The alkus<sup>®</sup> solid plastic panel with its unique sandwich design (for design details: see page 11) is produced in an extrusion process and then further processed using CNC

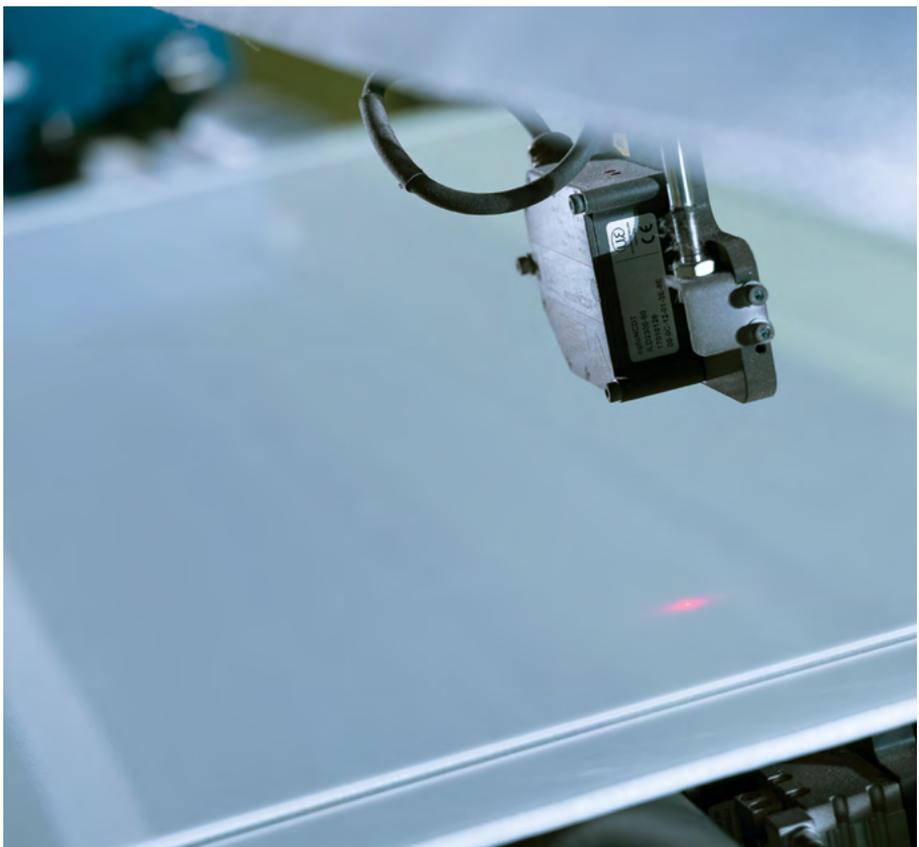
techniques (Computerised Numerical Control). The panels can be adapted to any formwork system – while detail and processing drawings are available for almost every system. Special sizes, including panel welding, milling and drilling, are available upon request. The standard delivery period for the alkus<sup>®</sup> formwork is four to six weeks.

### **Investments in in-house production**

At the alkus production sites, the panels are manufactured and assembled using state-of-the-art equipment, double belt presses, CNC machining centres and a fully automatic panel welding system. The overall concept is based on sustainable principles.

### **Regional procurement of accessories and tools**

alkus AG procures the tools and accessories for manufacturing the alkus<sup>®</sup> solid plastic panel from local suppliers. The tools are then adapted to the individual needs and requirements of the user. Short transport routes ensure not only fast delivery times but also help reduce emissions, thereby protecting the environment.



# 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.

# FACTS & FIGURES

**YOUR PARTNER FOR ALL PANEL SYSTEMS –  
THE ORIGINAL FOR MORE THAN 20 YEARS.**



The alkus® panel  
enables more than  
**1,500 uses**

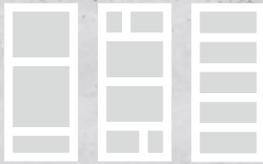


For **ALL INDUSTRIES**  
within construction business

- Construction industry
- Formwork manufacturers
- Architects
- Tunnel and special formwork
- Formwork retailers and suppliers
- Precast concrete unit industry



For **ALL FORMWORK** systems



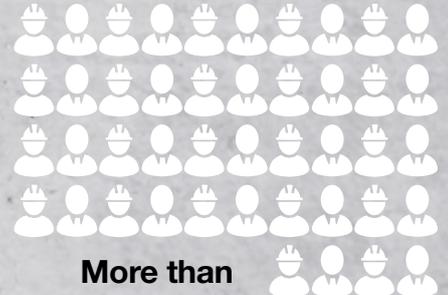
**7 YEAR**  
long-term warranty on  
key technical properties



Management  
System  
ISO 9001:2015

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**CERTIFIED**  
quality management



From **3 LOCATIONS** for  
customers in  
**70 COUNTRIES**

More than **1,100 CUSTOMERS** worldwide



More than **20 YEARS**  
professional experience  
in formwork solutions



More than **1,000,000 m<sup>2</sup>** of our  
wood-free solution delivered in the last **10 YEARS** –  
saving millions of m<sup>2</sup> plywood



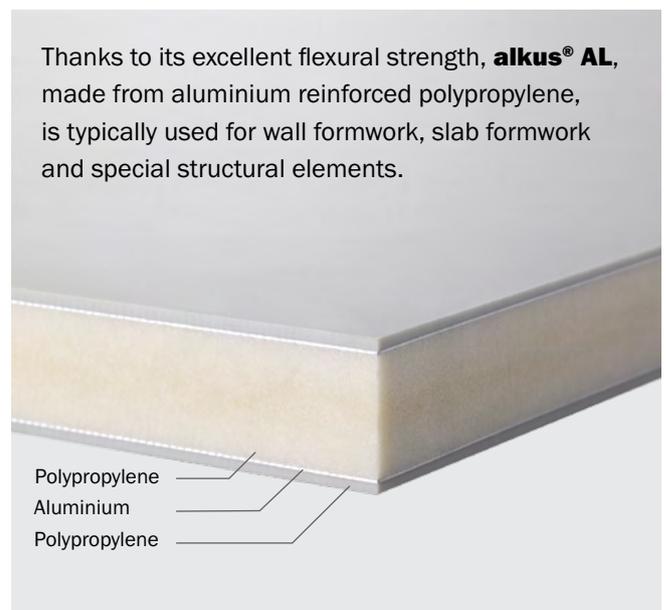
# alkus<sup>®</sup> SOLID PLASTIC PANELS

# 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> in use:  
Video: [www.youtube.com/alkusAG](http://www.youtube.com/alkusAG)



# DURABLE, PRACTICAL, SUSTAINABLE YOUR ADVANTAGES AT A GLANCE



## Profitable for years to come

The alkus® solid plastic panel enables more than 1,500 uses – that is 30 times more than many plywood panels and 3 to 4 times more than many other plastic panels. This results in far less need for re-facing.



## More resistant than plywood

The alkus® solid plastic panel is resistant to UV rays and moisture. It neither swells nor shrinks, meaning there are no irregularities (ripples) on the panel surface. Delamination, which can occur in plywood panels due to surface damage, is also not possible.



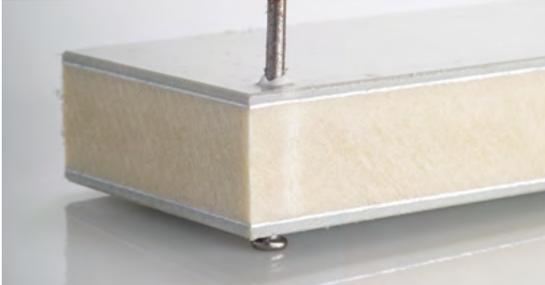
## Easy to repair without any loss of quality

Scratches, holes or perforations: The alkus® solid plastic panel can be repaired quickly and easily using identical material. This means: The unique repair solution helps to retain the technical properties of the panel. Easy removal and replacement of damaged panel sections as opposed to the costly acquisition of whole new ones.



## Panel sizes and thicknesses for every application

alkus® solid plastic panels are manufactured in a continuous production process and are available in various widths and thicknesses. Furthermore, several panels can be skillfully welded together in the workshop or even directly on-site to produce panels of every shape and size.



### Easy to handle and process

The alkus<sup>®</sup> solid plastic panel can be nailed, screwed and cut just like plywood.



### Quick and easy panel cleaning

The alkus<sup>®</sup> solid plastic panel can be cleaned quickly and easily after application – even using a high-pressure washer with up to 1,000 bar/14,500 psi and a rotary nozzle.



### Top quality exposed concrete

The alkus<sup>®</sup> solid plastic panel enables perfect element joints and excellent concrete surfaces corresponding to exposed concrete class SB4. In contrast to plywood panels, there is no formwork-related discolouration of the concrete surface due to a phenolic resin coating.



### Versatile: rigid yet flexible

The alkus<sup>®</sup> solid plastic panel is rigid but can be bent, shaped and formed quite easily. This ensures the simple production of special concrete forms – curves and corners. The elasticity modulus remains unchanged throughout the entire life cycle.



### Greener than plywood

The alkus<sup>®</sup> solid plastic panel can be recycled 100%. Furthermore, its use demands far less formwork oil.



# BETTER THAN PLYWOOD

UP TO **1,500** USES

**Moisture penetration not only affects the longevity of plywood panels – it also spoils the concrete finish.**

alkus® solid plastic panels are immune to the common causes of plywood damage: they last up to thirty times longer than many plywood panels – over 1,500 uses of the same alkus® solid plastic panel have been documented.

- + No shrinking, swelling or rotting
- + No moisture absorption
- + No irregularities (ripples)
- + No discolouration of the concrete
- + No delamination
- + High resistance to UV rays
- + High abrasion resistance
- + High resistance to acids, alkalis and chemicals

alkus® solid plastic panels can be nailed, screwed and cut just like plywood – as well as bent, shaped, formed and repaired (with identical material) without any loss of quality. It's a worthwhile investment!

alkus® solid plastic panel

# 1,500

uses and still going!





## COST CALCULATION

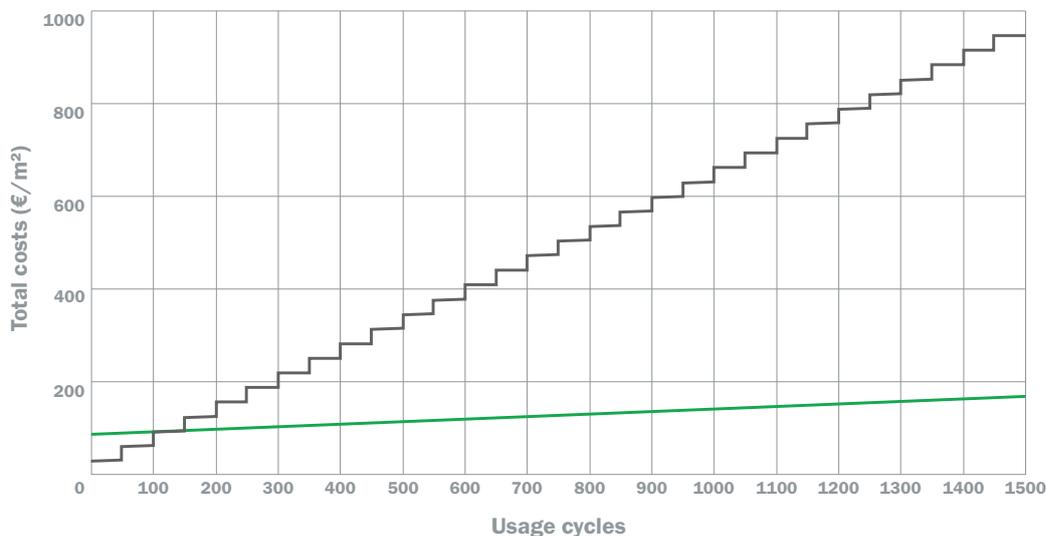
# alkus<sup>®</sup> – QUALITY PAYS OFF!

The alkus<sup>®</sup> solid plastic panel is an investment – but much more economic over its entire service life when compared to plywood or other plastic boards.

EXAMPLE CALCULATION:	Plywood	alkus <sup>®</sup>
PRICE (€/m <sup>2</sup> )	€ 30.00	€ 88.69
USAGE CYCLES (number of concreting applications)	50	1,500
COST PER USAGE CYCLE	60 ct	5.91 ct

Plywood is 10 times more expensive per use!

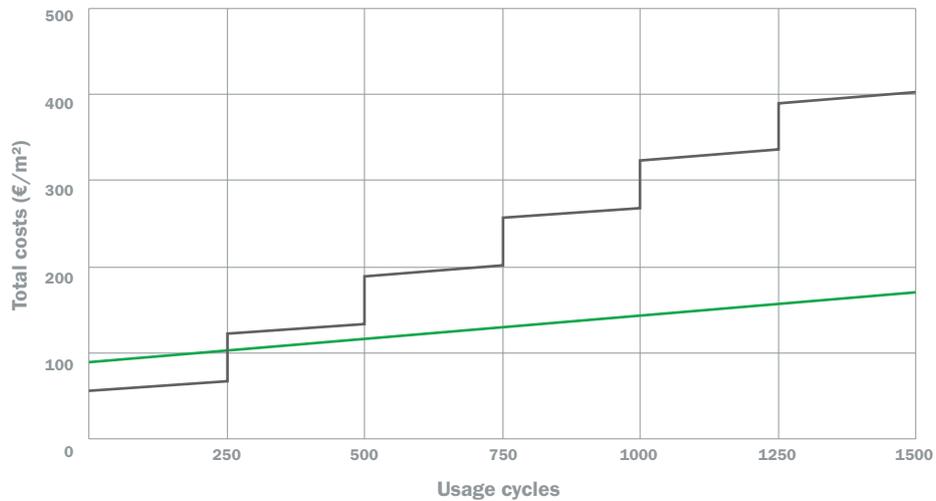
Although the purchase price in the example is more than three times as high, the alkus<sup>®</sup> panel already pays for itself after 150 uses – from then on the savings increase with each use. And the labour costs for panel changing are not even taken into account in this example!



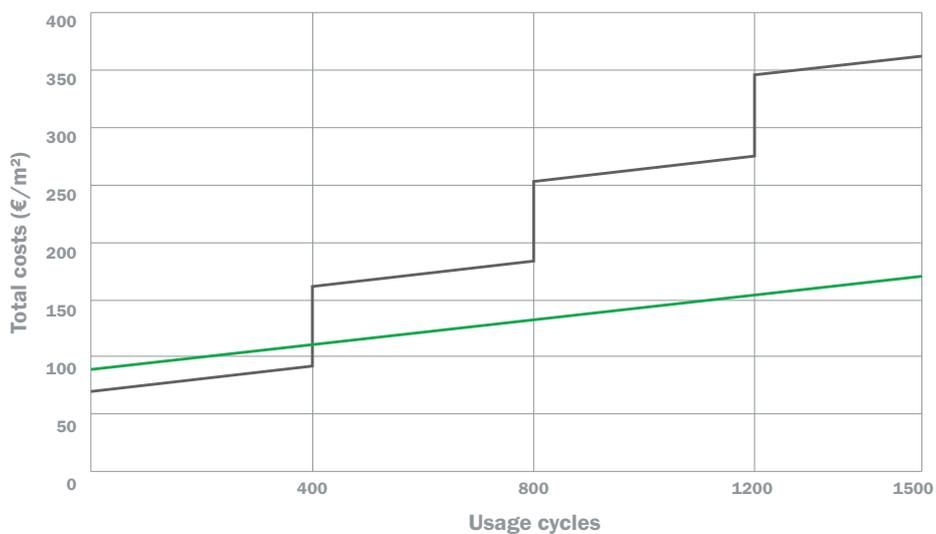
Explanation: Presentation of the total costs per square metre after x usage cycles. Assumption: Purchase prices: alkus<sup>®</sup> 88.69 €, plywood 30 €. Usage cycles: alkus<sup>®</sup> without panel changes: 1,500; plywood: 50. For running costs (such as maintenance and cleaning) per use: 5.4 ct (alkus<sup>®</sup>) and 3.25 ct (wood) were assumed.

**alkus<sup>®</sup> also pays off in comparison to other plastic panels.**

The overall calculation for a wood-plastic panel with costs of 55 €/m<sup>2</sup> and a lifetime of 250 usage cycles shows: Already after the very first panel replacement of the wood-plastic panel, alkus<sup>®</sup> is the more economic choice! The aforementioned is calculated with running costs per usage cycle of 5.4 ct (alkus<sup>®</sup>) and 4.8 ct (wood-plastic).



Even compared to a 20 % cheaper solid plastic panel with a service life of 400 usage cycles, the savings are obvious (price per square metre of competitor's product is 70 €/m<sup>2</sup>, running costs of both brands of panels is 5.4 ct/usage cycle):



**Its long service life makes alkus<sup>®</sup> simply unbeatable in the long run!**

You can easily calculate this for your formwork system and formwork facing at [www.alkus.com/calc](http://www.alkus.com/calc)



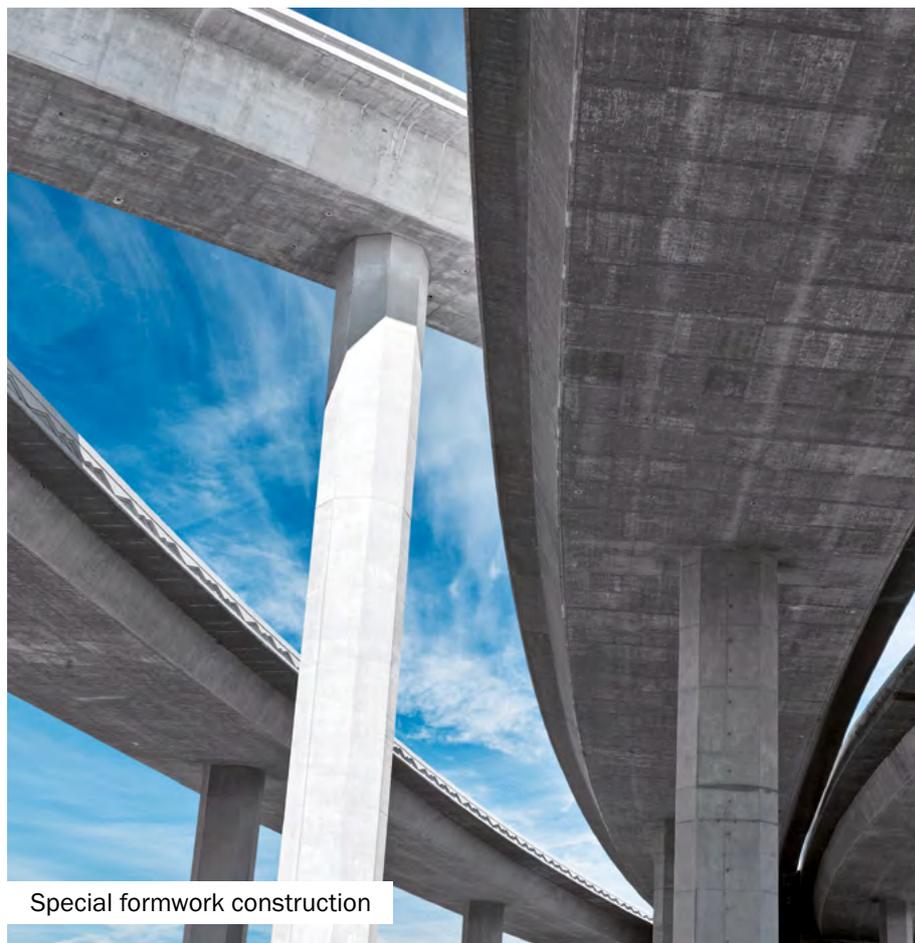


Unstruttal bridge (Karsdorf, Germany)

# BOUNDLESS POSSIBILITIES



# alkus<sup>®</sup> IS A WORTHWHILE INVESTMENT FOR YOUR INDUSTRY



**Save time, money and energy:**  
**alkus<sup>®</sup> solid plastic panels offer real advantages in industrial applications.**

**Formwork manufacturers and rental companies**

alkus<sup>®</sup> solid plastic panels last up to thirty times longer than plywood panels, are more or less wear resistant and can be repaired with identical material. This means the same panel can be hired out over and over again!

**Formwork retailers**

alkus<sup>®</sup> solid plastic panels can be tailored to every formwork system. Allow your customers to work with great efficiency and achieve a higher level of customer satisfaction with a whole new range of services!

**Tunnel and special formwork construction**

alkus<sup>®</sup> solid plastic panels can be formed to almost any shape and are extremely robust and resistant. Special designed for the task at hand and used for longer without having to be replaced.

**Precast concrete industry**

alkus<sup>®</sup> solid plastic panels are ideal for efficient large production runs. They can be supplied in almost any size and shape to meet requirements, are much lighter and easier to handle than steel panels – and correspond to exposed concrete class SB 4.

**Construction industry**

alkus<sup>®</sup> solid plastic panels are more durable than plywood panels, but just as easy to use. They are suitable for every formwork system and actually outlast the frame, making them much more efficient and economical than other solutions on the market today.

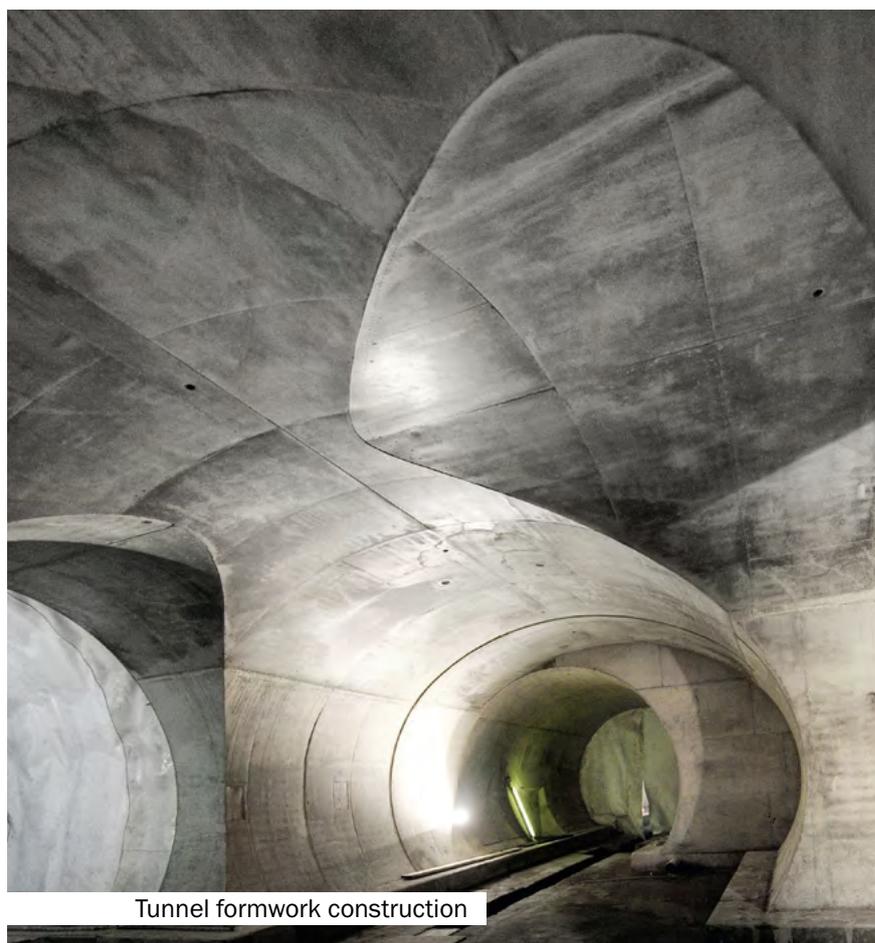
**Architects**

alkus<sup>®</sup> solid plastic panels are very rigid yet second to none in terms of flexibility and adaptability – they ensure high quality surfaces of exposed concrete without visible joints. alkus<sup>®</sup> solid plastic panels help you to achieve ambitious concrete projects!

**alkus<sup>®</sup> solid plastic panels were originally developed as concrete formwork panels. However, many other sectors can profit from their positive characteristics:**

- + House construction
- + Dike construction
- + Furniture construction
- + Trailer construction
- + Stage construction

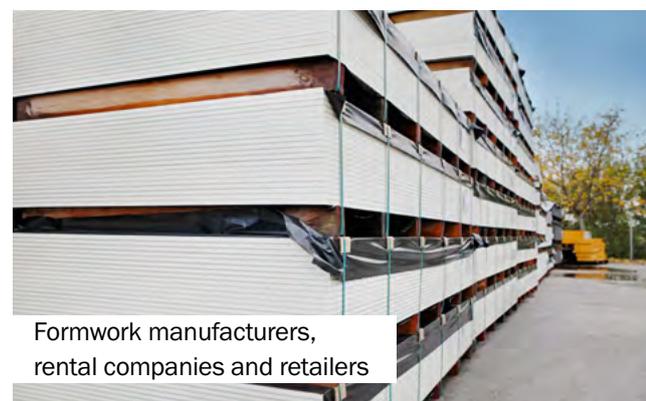
**Simply the clever choice wherever durability and flexibility are required!**



Tunnel formwork construction



Precast concrete industry



Formwork manufacturers, rental companies and retailers



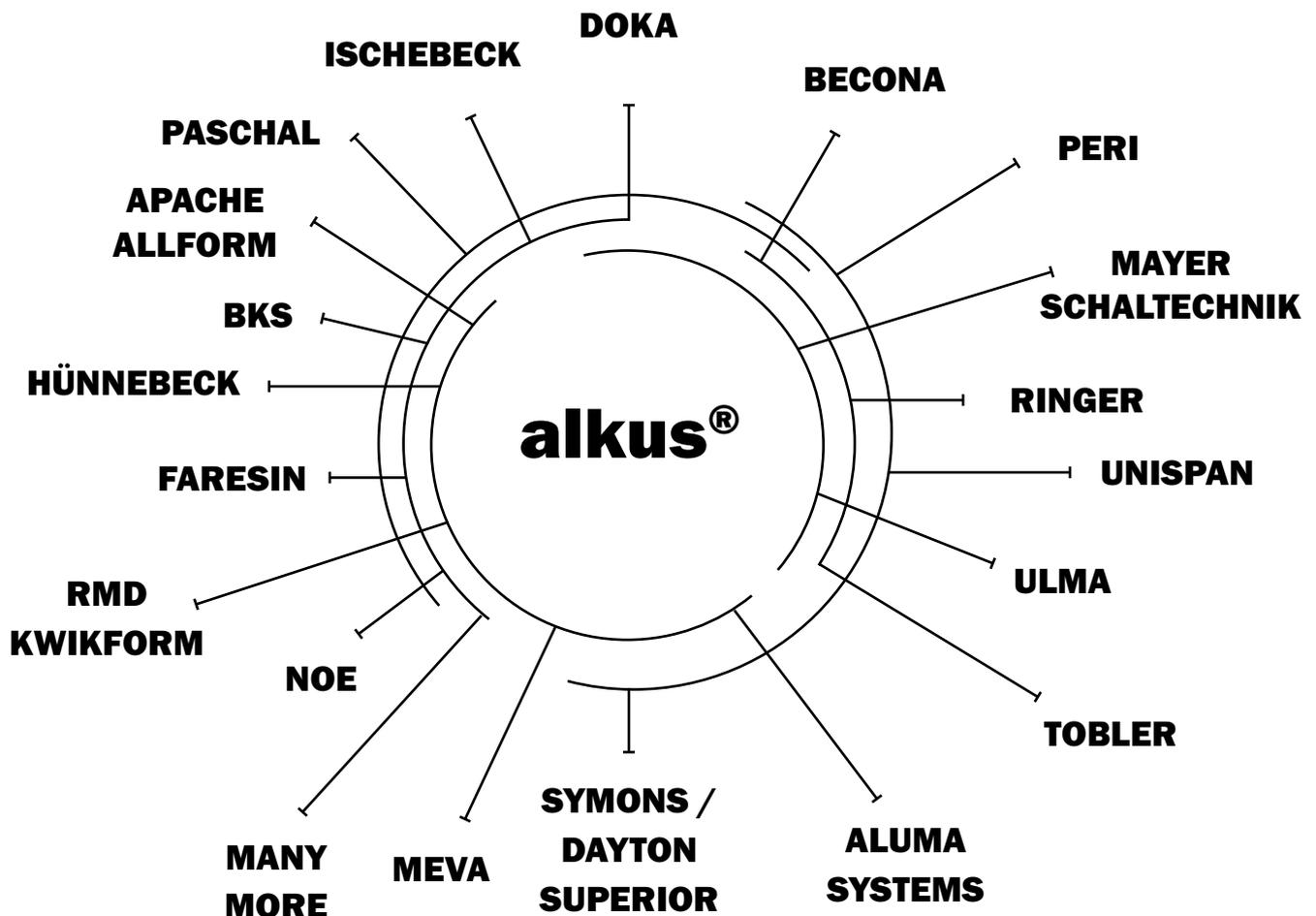
### Your plus in terms of compatibility:

alkus® solid plastic panels can easily be used for all common panel formwork systems. In addition alkus® offers several panel thicknesses, flexible formats thanks to a continuous production process and virtually any panel size due to the possibility of welding.

# UNIVERSAL APPLICATION

## INSTALLATION IN ANY FORMWORK SYSTEM

alkus<sup>®</sup> solid plastic panels are suitable for every available panel formwork system – irrespective of the manufacturer. They can be riveted or screwed into place from the front or the rear. The alkus<sup>®</sup> solid plastic panel is delivered ready-to-use for your formwork system (customised for installation dimensions including tie holes and possible welding for large-scale elements).



Installation in common formwork systems  
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

# SERVICE THAT PAYS OFF

**We are here to make it as easy as possible for you and your staff to reap the benefits of alkus® solid plastic panels – and will be happy to answer any questions you may have.**

We offer free set-up demonstrations and training courses to all our customers during which we also focus on cleaning and repairing alkus® solid plastic panels. We will be delighted to either visit your premises with our alkus® service van or welcome you to our Technology Centre. We will, of course, continue to offer you any advice and support for as long as it is needed!



# THE EFFICIENT WAY TO YOUR NEW **alkus**<sup>®</sup> **SOLID PLASTIC PANELS**



**alkus**<sup>®</sup> AL, **alkus**<sup>®</sup> GM and a whole range of accessories (e.g. a repair kit) can be ordered directly from **alkus**.

They are available in various thicknesses and sizes and can be tailored to your special needs.

Call us on **+423 236 0030**, send an email to **mail@alkus.com** or visit our website for further information.



**We look forward to hearing from you!**

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

**Sales & Marketing**

alkus AG  
Gewerbeweg 15  
9490 Vaduz  
Liechtenstein

Phone: +423 236 0030  
E-Mail: [mail@alkus.com](mailto:mail@alkus.com)

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

**Sales & Marketing USA**

alkus North America Inc.  
62-64 Enter Lane  
Islandia NY 11749  
USA

Phone: +1 616 490 4174  
E-Mail: [mail@alkus.com](mailto:mail@alkus.com)

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

**Research & Development**

alkus GmbH & Co. KG  
Kunststoffverbundsysteme  
Im Auchtert 8  
72186 Empfingen  
Germany

Phone: +49 748 598 389910  
E-Mail: [mail@alkus.de](mailto:mail@alkus.de)

**[www.alkus.de](http://www.alkus.de)**