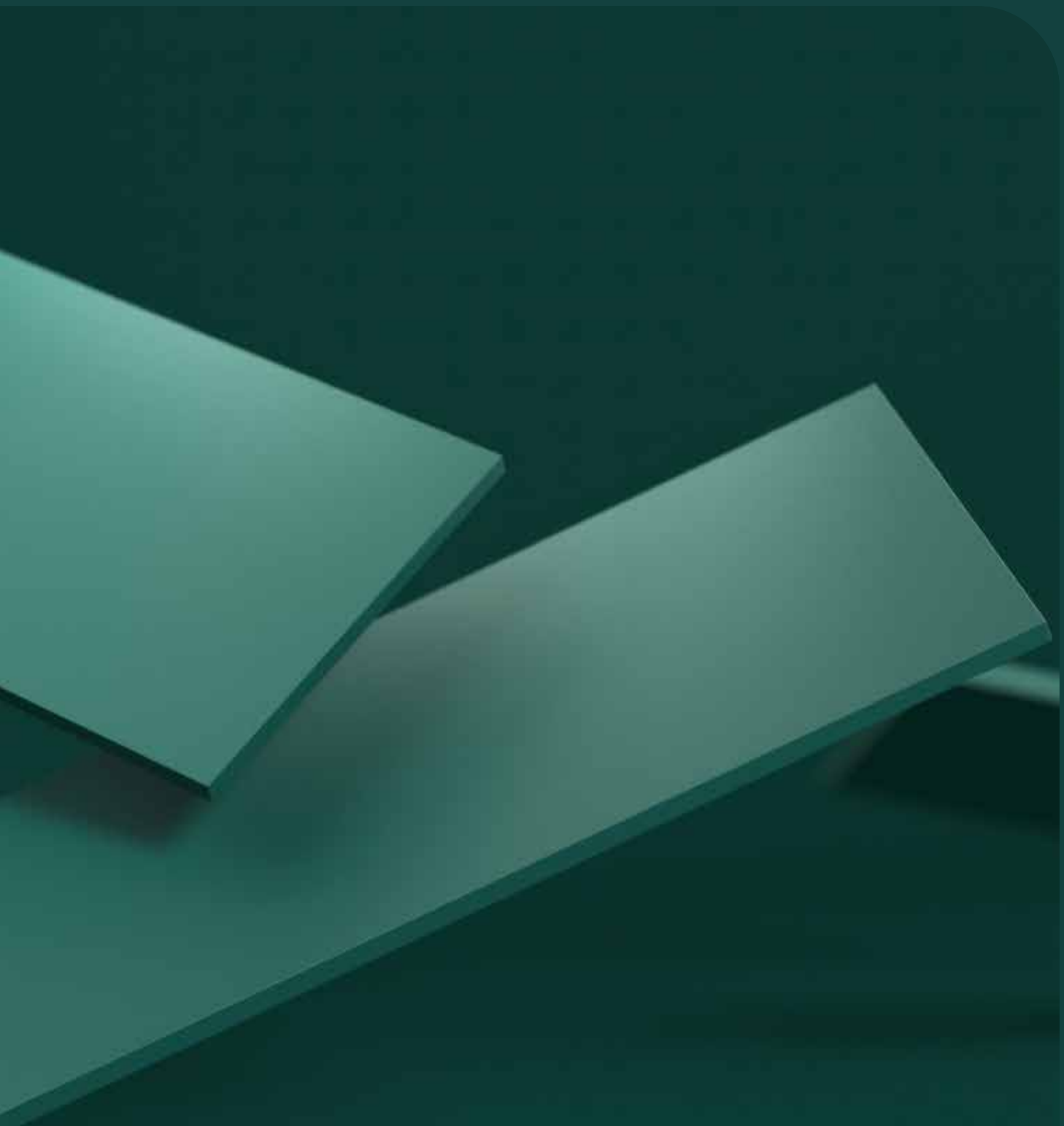
Paneltim®

We empower creators
to **build what lasts**

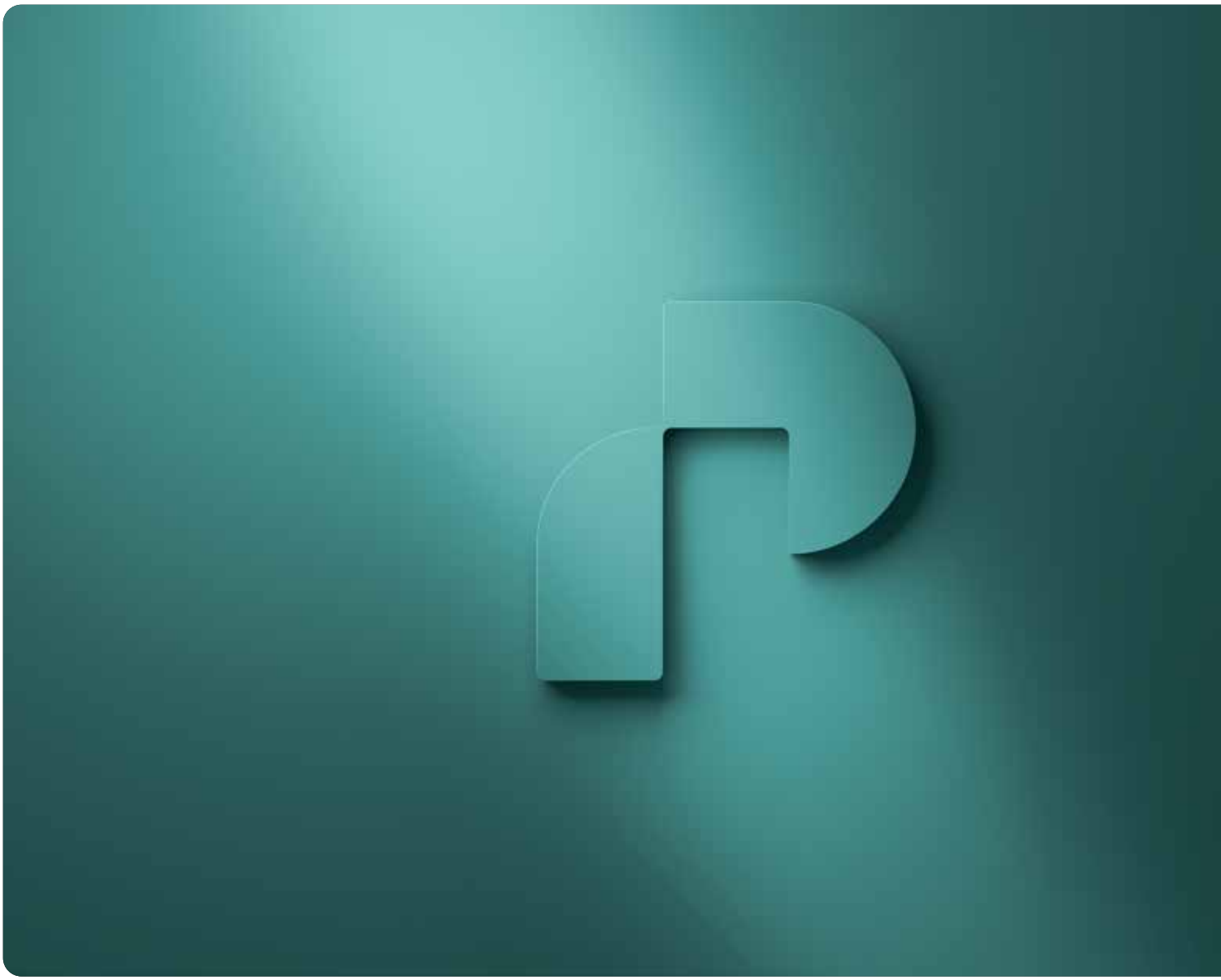


Construction panels

Lightweight Structural Plastic Panels

EN

Content



We empower creators to **build what lasts**

Paneltim®

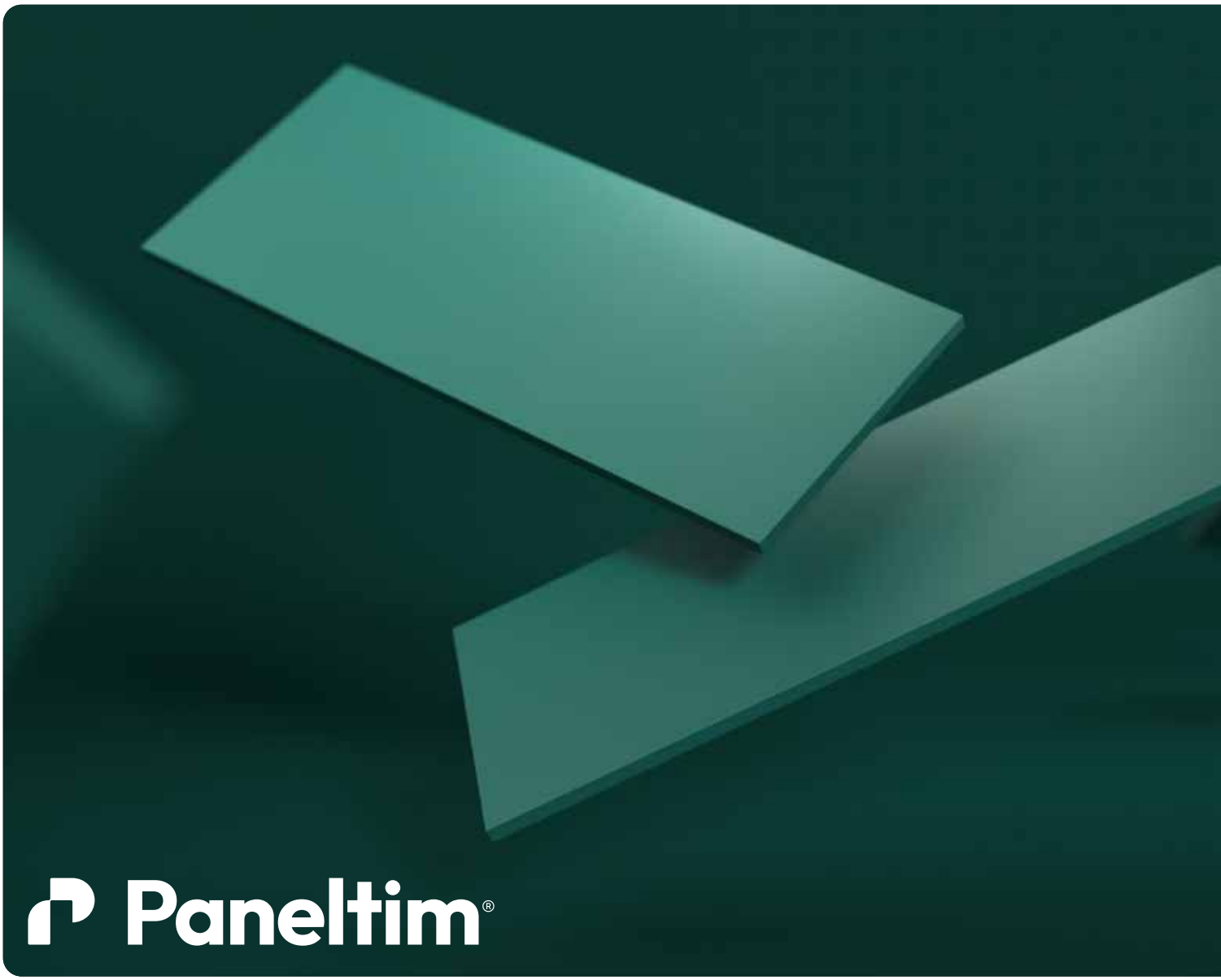
People
Pleasure
Planet
Progress
Panels

We, at Paneltim, have been pioneers in reinventing plastic panels for more than 30 years. With passion and craftmanship, our dedicated team works together with the market to develop smarter, stronger and more sustainable products. However, our story goes beyond innovation alone.

We strongly believe in the power of co-creation. Our panels form the foundations with which creators, designers and engineers bring their ideas to life. They build, change and innovate. Every project, big or small, offers the opportunity to discover new possibilities and raise the bar even higher.

Progress is not just about today, but especially about tomorrow. We develop products that evolve with the market and the planet. Our panels are sustainable, versatile and designed for reuse.

It is in our nature to push the boundaries of the possibilities of plastic panels. This way, we build towards a smarter, more sustainable world. One panel at a time.



We empower creators to **build what lasts.**

Paneltim strives to offer innovative plastic panels, that push boundaries. We aim to contribute to a healthier world by sustainably using plastic materials. Through constant innovation, we guarantee the relevance of our products, not only now, but also in the future.

People
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Panels

Urge to innovate

With 28 years of experience, we combine in-depth expertise with a constant focus on innovation. Our plastic panels are technically strong, meet the high-quality standards and offer a multi-purpose product that respond to the specific needs/demands of our clients. Our panels offer a sustainable and efficient alternative to conventional materials.

Sustainability and co-creation

As sustainable pioneers, we work closely together with our clients and actively listen to their wishes. Together we cocreate both efficient and sustainable solutions. We repurpose our old and used products through our buy-back program. This way, we support the circular economy. Together with our clients, we work towards a future, in which we maximally recycle the existing plastic on the market and in doing so, offer sustainable solutions.

Accessible and open

As a family SME , we operate with an accessible and open mentality. We are proud of our craftmanship and proudly share our knowledge with our network. Our personal and trustworthy approach contributes to our transparent and consistent way of handling matters. This way, we enable our clients to always count on us with confidence and peace of mind.

Building what lasts, not what pollutes

Sustainability has been a fundamental pillar of Paneltim's company philosophy since the very first day of production and continues to be deeply embedded in everything we do today. From the outset, we have been driven by the ambition to provide innovative and smart plastic panels that not only push the boundaries of product performance but also contribute meaningfully to a healthier planet through the sustainable use of plastics. This commitment reflects our belief that progress is not only about today but also about building a better tomorrow for future generations.

Planet
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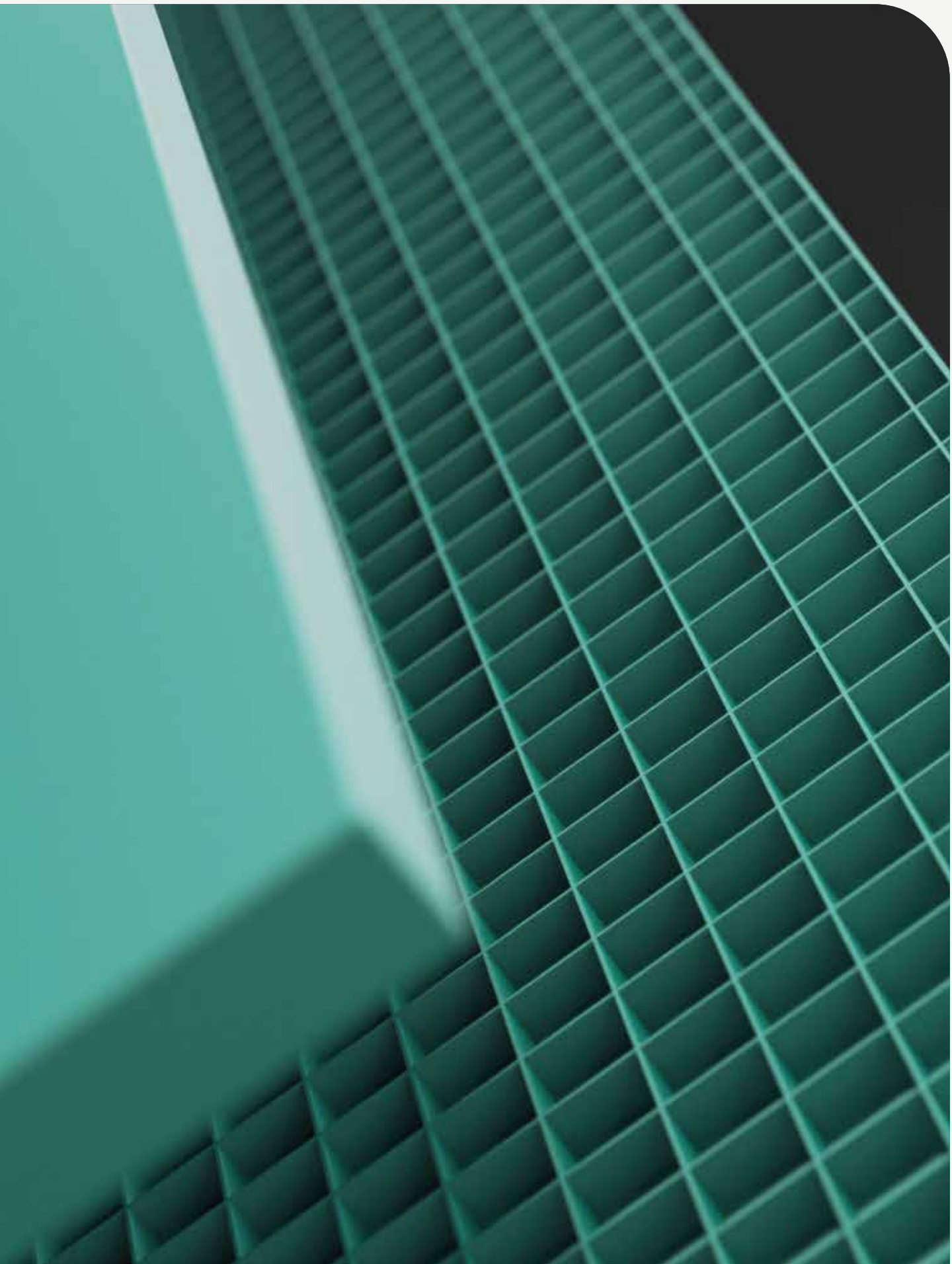
One of the key aspects of our sustainability efforts is that 50% of the panels we produce are made entirely from recycled materials. This includes both post-industry and post-consumer recycled plastics, carefully processed and quality-controlled to meet our high standards of strength, lightness, and hygiene. Additionally, our panels are designed as single-material products (either polypropylene or polyethylene) to enable easy recycling at the end of their life cycle, thus preserving raw material value and supporting a circular economy.

Our production facilities have also undergone continuous improvements to minimize waste, maximize waste collection, and enhance the reuse of leftover materials. This zero-waste approach is a core part of our manufacturing ethos, ensuring that materials are reused either internally or through external recycling partners, thus significantly reducing our environmental footprint. Moreover, we actively engage in yearly sustainability initiatives aligned with the United Nations Sustainable Development Goals (SDGs), reaffirming our global commitment to sustainable development and responsible business practices.

Together with our customers, we co-create efficient and sustainable solutions, taking back products at the end of their life for repurposing and reintegration into the production cycle. This collaborative spirit underpins our efforts to push the boundaries of what plastic panels can achieve, making sustainability not just a goal but a natural part of our innovation and craftsmanship.

In summary, sustainability is not an afterthought but a core, inherent value at Paneltim, guiding product design, material selection, and production processes. From recycled content and waste minimization to global sustainability initiatives and circular economy principles, we continuously innovate to build smarter, stronger, and greener panels for a more sustainable world—one panel at a time

Paneltim® Multipower



Robust Applications

Paneltim® Multipower panels are designed for superior strength and rigidity, thanks to their advanced internal cell structure. This unique composition ensures excellent bending resistance in all directions, making them exceptionally durable and reliable in demanding applications.

Engineered for performance, these panels provide high-strength yet lightweight solution, allowing for greater efficiency in construction and industrial projects. Their structural integrity ensures long-lasting stability, making Paneltim® Multipower the ideal choice for applications where strength is a critical requirement.

Less material loss

On the 2,600 x 1,000 mm Paneltim® panels, the first cell along the outer edge is precisely designed at 25 mm in width. This smart engineering minimizes material loss during the butt welding process, reducing waste by 2%. By optimizing the panel's structure, we ensure not only efficient material use but also a more sustainable and cost-effective solution for various applications.

Why choose the Paneltim® Multipower panel:

- Lightweight yet highly rigid
- Equal strength in both length and width
- Easily weldable to any size
- Ideal for use in confined spaces
- Resistant to corrosion and wear
- Short welding cycles for greater efficiency
- 100% recyclable
- Proven long-term performance for prime panels

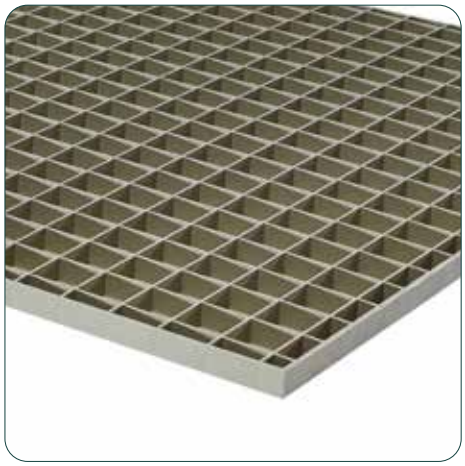
A closer look at the Multipower panel

Paneltim® Multipower panels combine lightweight construction with exceptional strength and rigidity. Their advanced design ensures minimal deflection under load, making them a reliable and durable choice for demanding applications.

Surface	Material	Thickness (mm)	Cells (mm)	Dimensions (mm x mm)	Walll thickness (mm)	Weight (kg/m²)
2 smooth sides	PP	50	50 x 50	2 600 x 1 000	4,50	12,80
				1 200 x 1 000	3,30	11,50
	PE			2 600 x 1 000	4,50	13,80

Other colors & small PE panels also available on request with a minimum order quantity.

Cells



Cells of 50 mm x 50 mm

Colors

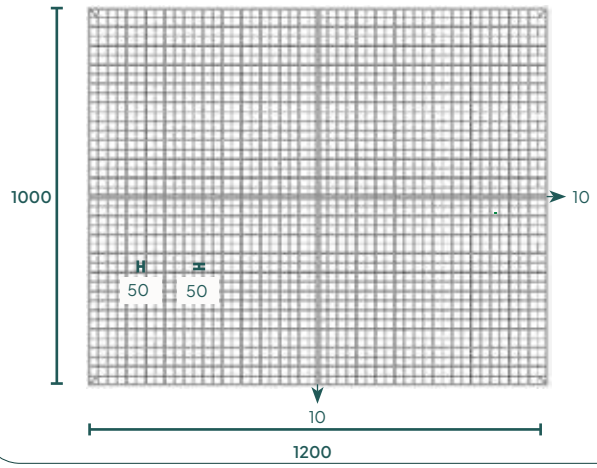
Material		PE	PP		
Colors		Prime	Prime	NTP	Recy
	White UV RAL 9010	●	●		
	Beige UV RAL 7032		●		
	Grey UV RAL 7037		●		
	Grey RAL 7001			●	
	Black	●			

Scan the code and find out more about the Multipower panel!

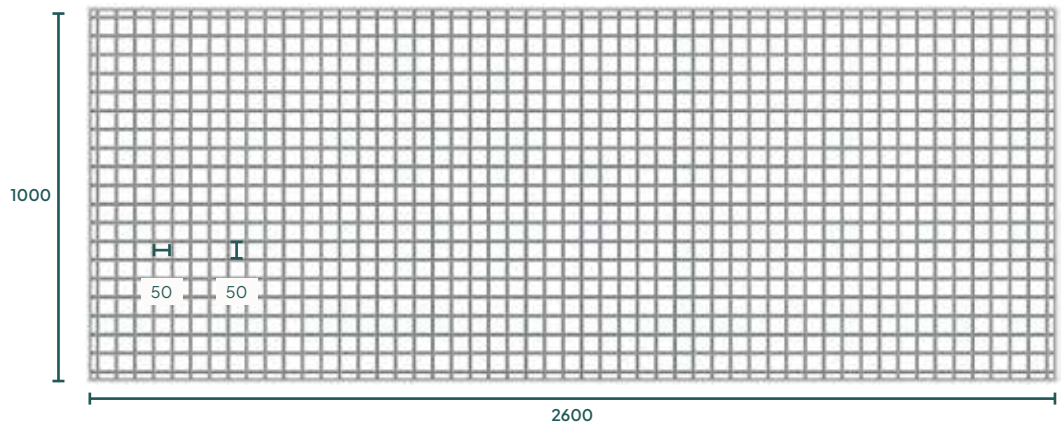
The above colors are indicative only and do not represent true colors. With recycled panels, variation in colors and color tones is possible. You will find the lead time and minimum order quantities in the price list. Not every color is available in every size. The panels are available in other colors on request. Contact us for more information.

At the core of the Paneltim® Multipower panel*:

1200 x 1000



2600 x 1000



*All sizes are given in mm.

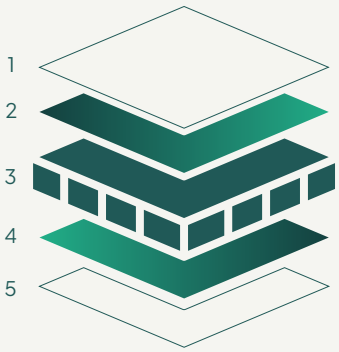
Paneltim® Base

Five-Layer design

Our new Paneltim® Base panels are engineered with a precise five-layer structure designed for reliable performance and broad versatility.

1. Polyester backing: an outer layer on both sides
2. An adhesive layer to bond the fabric with the panel
3. Multipower core: The central component, providing strength and stability
4. Adhesive layer: Mirroring the second layer for symmetry
5. Polyester backing: Matching the first layer

This balanced, symmetrical design keeps the Multipower's core shape and strength intact. The outer polyester layers, bonded with advanced adhesive, ensure long-lasting attachment to many different materials.



Optimal Bonding

Paneltim® Base is developed to empower creators to add extra functional or aesthetic layers, ensuring each panel fits their specific project needs. The laminated polyester backing provides a reliable foundation for glues and other adhesives, securing additional layers with long-term durability. Combined with the strength of the Multipower core, this design delivers a panel that excels in both appearance and structural performance—making Paneltim® Base an ideal solution when aesthetics matter just as much as weight and strength.

Why choose the Paneltim® Base panel:

- Designed for optimal bonding
- Lightweight yet highly rigid
- Equal strength in both length and width
- Easily weldable to any size
- Easy to process with regular tools
- Compatible with a variety of adhesives
- Suitable for both indoor and outdoor applications
- Multipower core
- Off-cuts are accepted in our buy-back program.

A closer look at the Paneltim® Base panel

Paneltim® Base panels combine lightweight construction with exceptional strength and rigidity. Their advanced design ensures minimal deflection under load, making them a reliable and durable choice for demanding applications.

Surface	Material	Thickness (mm)	Cells (mm)	Dimensions (mm x mm)	Walll Thickness (mm)	Weight (kg/m²)
2 sided polyester backing	PP	51	50 x 50	2 590 x 996	5	13

Other colors panels also available on request with a minimum order quantity.

Cells

Cells of 50 mm x 50 mm

Colors of the core panel

Material		PP		
	Colors	Prime	NTP	Recy
	Grey UV RAL 7001	●		

Scan the code and find out more about the Base panel!

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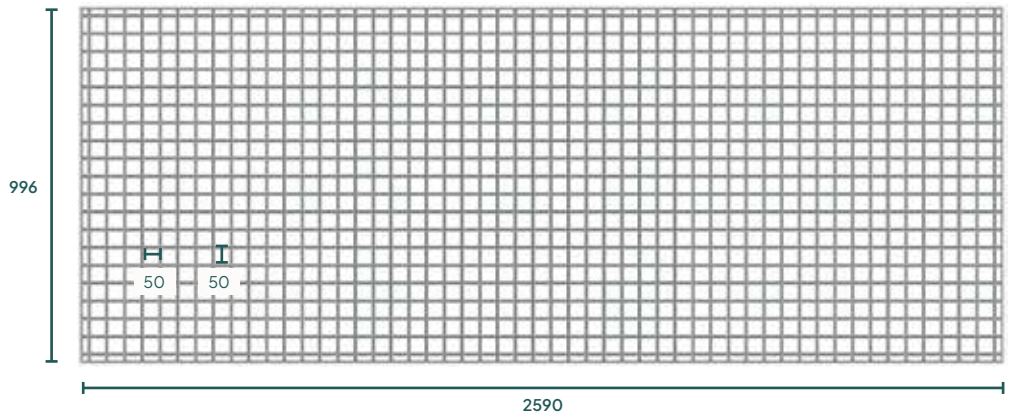
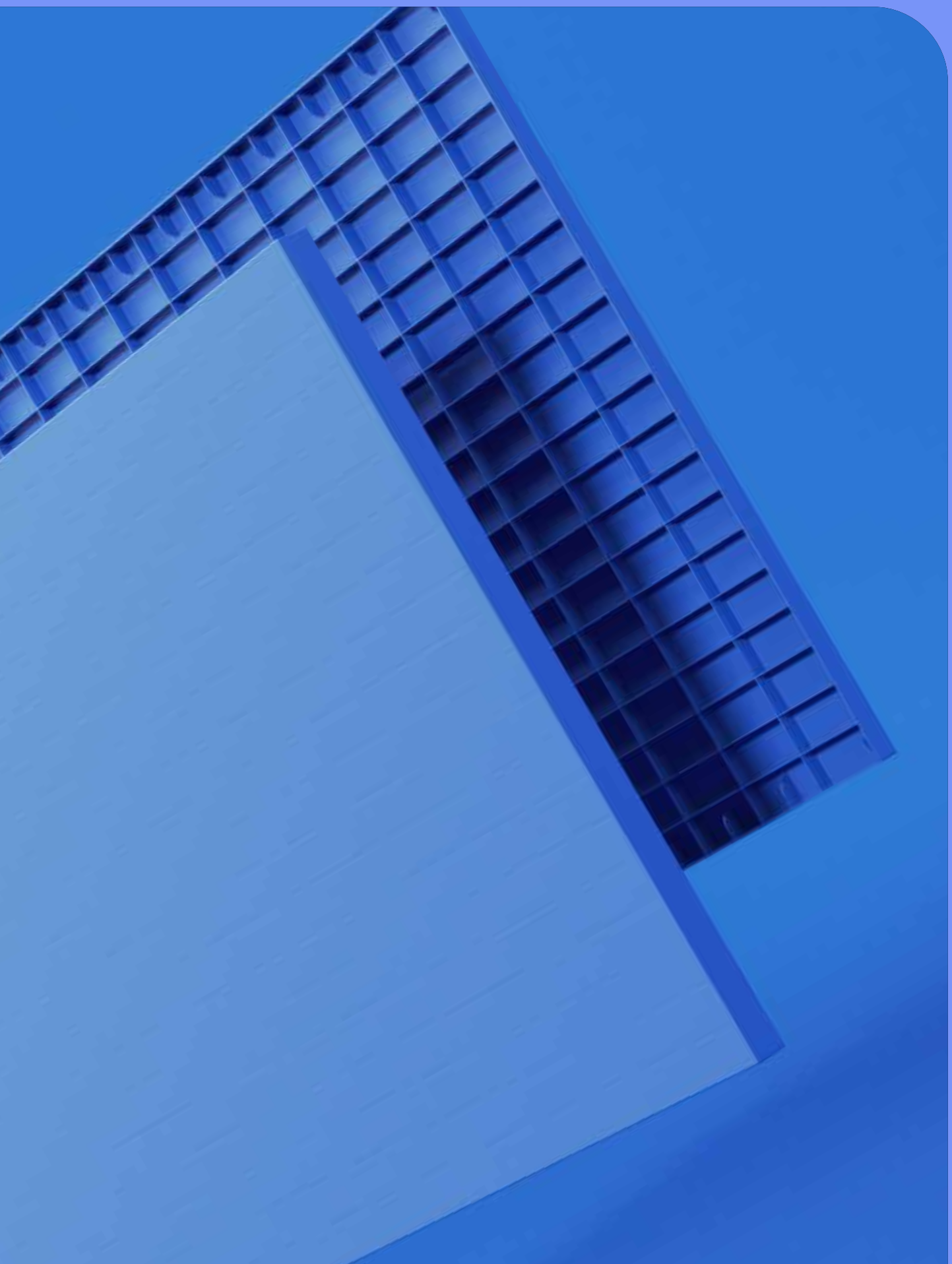
At the core of the Paneltim® Base panel*:

2 590 x 996



*All sizes are given in mm.

Paneltim® Lightweight



Flexible sizing

Paneltim® Lightweight panels measuring 1,200 mm x 800 mm and 1,200 mm x 1,000 mm always have a double rib (cross) in the centre. They are therefore easily turned into panels with heights of 50 cm or 60 cm.

Cabins and trailers

Paneltim® panels in polypropylene copolymer (PP copo) or polyethylene (PE) are lighter and stronger than most other construction panels out of plastic. This makes Paneltim® panels an excellent choice for construction of trailers, beach cabins, etc. The Paneltim® Antislip panels are an ideal addition to your cabin or trailer, as they considerably improve antiskid properties in both dry and wet conditions.

Reasons for choosing the Paneltim® Lightweight panel:

- Lightweight
- Different thicknesses
- Long lifespan
- Time savings due to short welding cycle
- Corrosion resistant
- 100% recyclable

The Lightweight panel in detail

Paneltim® Lightweight panels are light, strong and rigid with good resistance to deflection under load.

Surface	Material	Thickness (mm)	Cells (mm)	Dimensions (mm x mm)	Walll Thickness (mm)	Weight (kg/m²)
2 smooth sides	PP	20	100 x 50	1 200 x 1 000	3,5	7,70
				1 200 x 800		
		50		2 600 x 1 000		9,90
				1 200 x 1 000		
				1 200 x 800		
	PE			2 600 x 1 000		10,5

Other colors & small PE panels also available on request with a minimum order quantity.

Cells

Cells of 100 mm x 50 mm

Colors

Material		PE	PP		
Colors		Prime	Prime	NTP	Recy
	Green				●
	Green UV RAL 6001			●	
	Grey				●
	Grey UV RAL 7001			●	
	Grey UV RAL 7037		●		
	White UV RAL 9010	●	●		
	White				●
	Beige UV RAL 7032		●		
	Black	●			●
	Blue UV RAL 5002			●	

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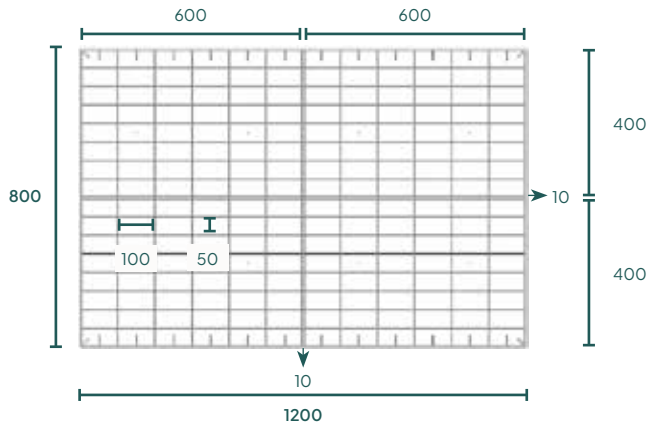
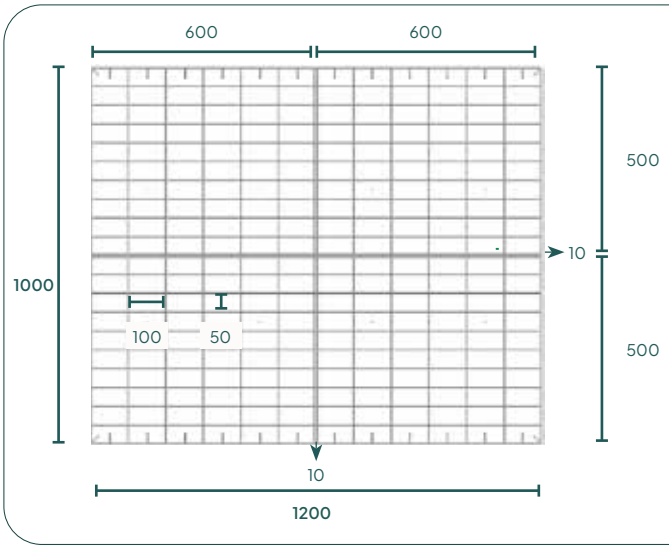
Scan the code and find out more about the Lightweight panel!

At the core of the Paneltim® Lightweight panel*:

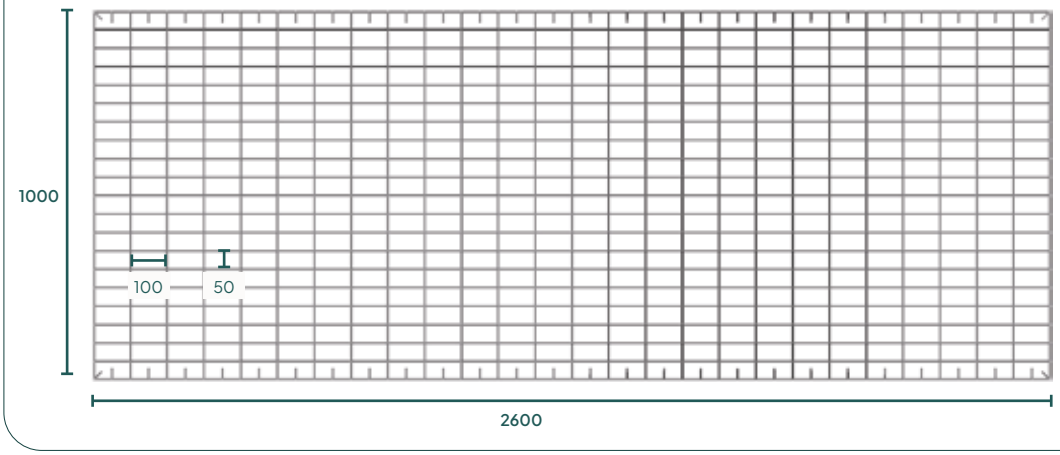
1200 x 800



1200 x 1000



2600 x 1000



*All sizes are given in mm.

Paneltim® EPP

Improved thermal insulation

Our new EPP (Expanded Polypropylene filled) panels deliver improved thermal efficiency without sacrificing practicality. Crafted for technical applications that demand better insulation, they retain the ease of processing found in our Lightweight panels while offering 4 times higher thermal insulation. Ideal for air handling systems, heat exchangers, and diverse enclosures, EPP panels provide a sustainable, seamless fit with your current production methods—helping you meet thermal performance goals with confidence.

100% recyclable

Made entirely from polypropylene—including both the panel and insulation cushions—our EPP panels are 100% recyclable at the end of their life and are accepted in our Buy Back Program. Unlike traditional alternatives filled with PUR or other non-recyclable materials, they align perfectly with your sustainability goals and help drive circular economy initiatives.

Why choose the Paneltim® EPP panel:

- Lightweight
- Thermal insulations
- 100% recyclable
- Butt-weldable
- As easily processed as our other panels
- Lightweight
- Corrosion resistant

The EPP panel in detail

Our new Paneltim® EPP panels deliver enhanced thermal efficiency and higher insulation while keeping the same practical processing as our Lightweight panels,

Surface	Material	Thickness (mm)	Cells (mm)	Dimensions (mm x mm)	Walll Thickness (mm)	Weight (kg/m²)
2 smooth sides	PP	50	100 x 50	2600X1000	3,5	10,75

Other colors & small PE panels also available on request with a minimum order quantity.

Cells

Cells of 100 mm x 50 mm

Colors

Material		PE	PP		
Colors		Prime	Prime	NTP	Recy
	Grey RAL 7001			●	
	White UV RAL 9010		●		
	Beige UV RAL 7032		●		

Scan the code and find out more about the EPP panel!

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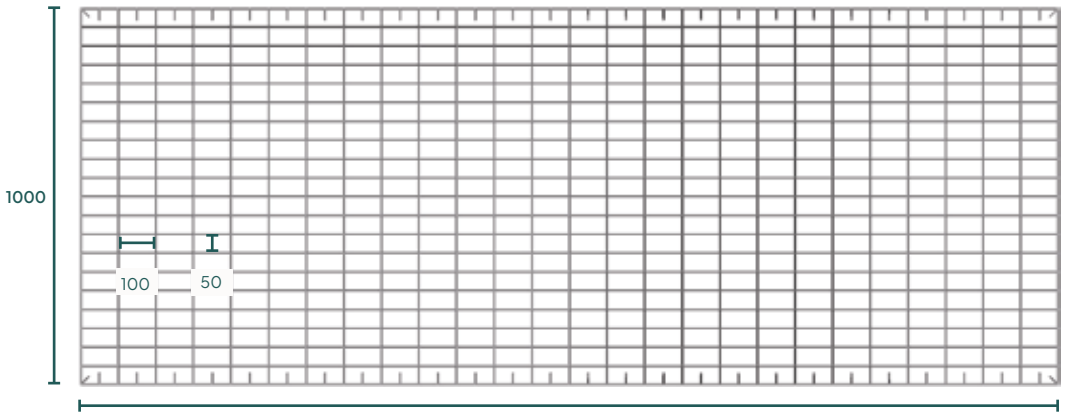
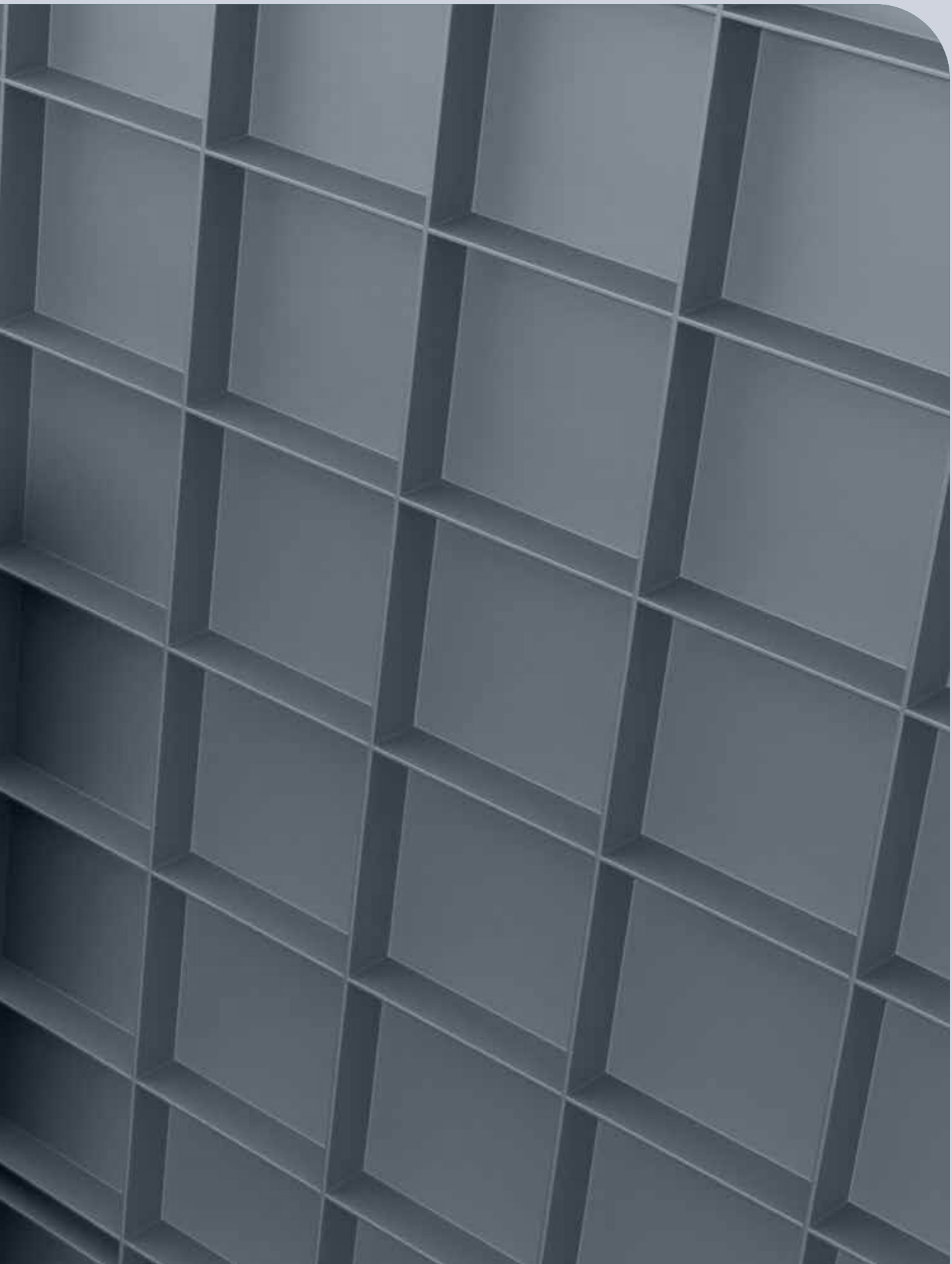
At the core of the Paneltim® EPP panel*:

2600 x 1000



*All sizes are given in mm.

Paneltim® Ultralight



Flexible dimensions

Paneltim® Ultralight panels have three double ribs in the width and one in the length. This makes it easy to cut the panels to standard sizes while keeping the edges closed. Panels of 40 cm, 50 cm and 60 cm high are produced quickly and without loss of material.

Simple processing

Paneltim® Ultralight panels are easily processed with standard hand tools such as a saw, a drill, screws, and by milling and welding. The panels can be welded to various dimensions using three welding methods: hot air welding, extrusion welding, and butt welding. Due to the panels' light weight, large dimensions created in this way are surprisingly easy to handle.

Why choose the Paneltim® Ultralight panel:

- Lightweight
- Flexible dimensions
- Less material loss due to double ribs
- Time savings due to short welding cycle
- Corrosion resistant
- 100% recyclable

The Ultralight panel in detail

Paneltim® Ultralight panels are the lightest in the range thanks to their internal cell structure of 100 mm x 100 mm. Yet they remain strong enough for a wide variety of applications.

Surface	Material	Thickness (mm)	Cells (mm)	Dimensions (mm x mm)	Walll Thickness (mm)	Weight (kg/m²)
2 smooth sides	PP	35	100 x 100	1 200 x 800	3,5	8,20
				1 200 x 1 000		

Other colors & small PE panels also available on request with a minimum order quantity.

Cells

Cells of 100 mm x 100 mm

Colors

Material		PE	PP		
Colors		Prime	Prime	NTP	Recy
	Green				●
	Green UV RAL 6001			●	
	Grey				●
	Grey UV RAL 7001			●	
	Grey UV RAL 7037				
	White UV RAL 9010			●	
	White				●
	Beige UV RAL 7032		●		
	Black				●

Scan the code and find out more about the Ultralight panel!

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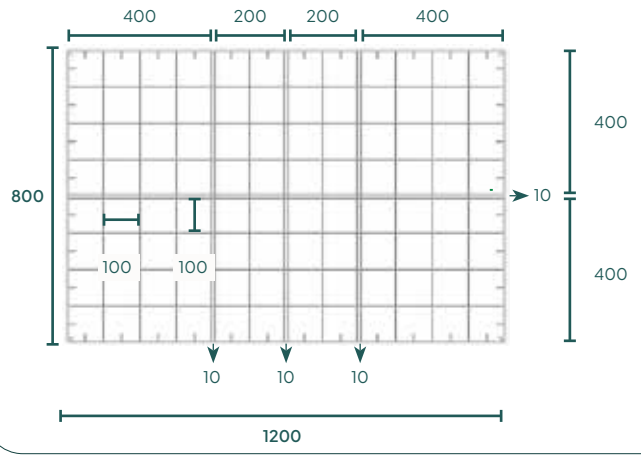
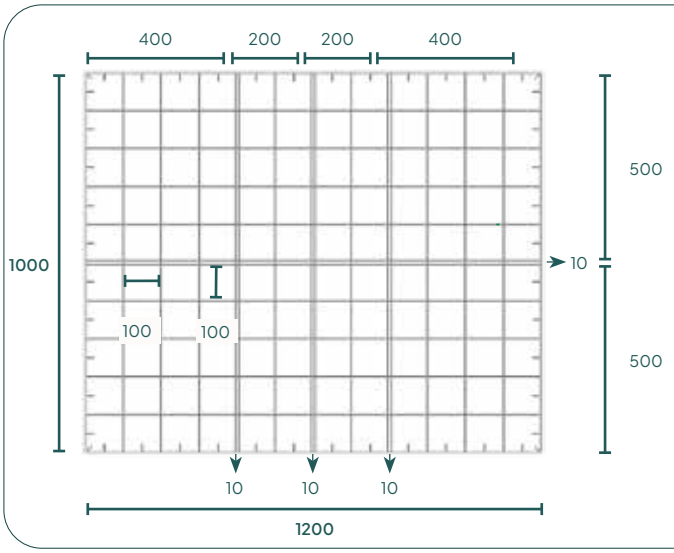
At the core of the Paneltim® Ultralight panel*:

1200 x 800

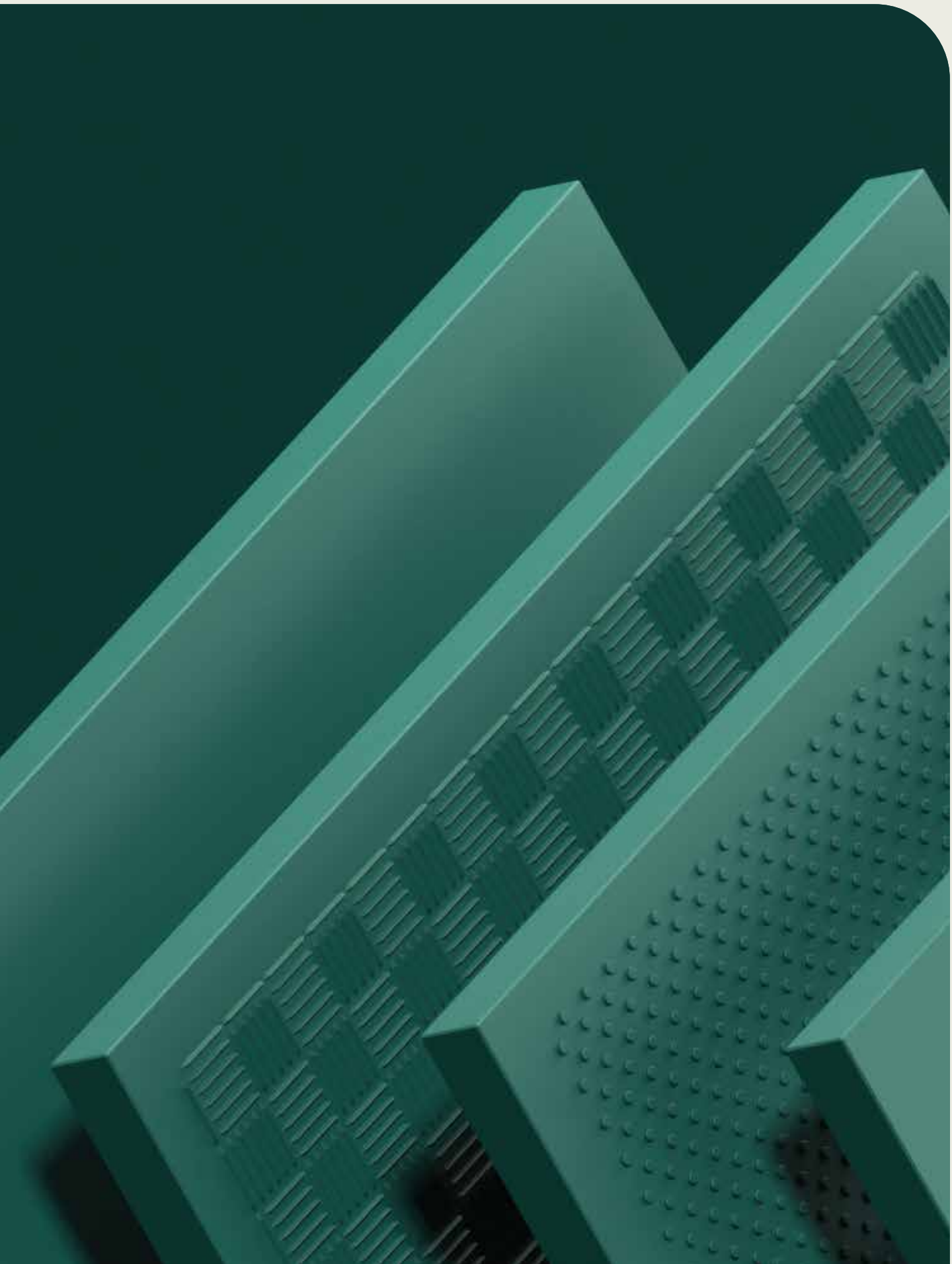


1200 x 1000



*All sizes are given in mm.

Paneltim® Antislip



Slip and resistance

Slips and falls are the most common causes of accidents in and around the workplace. Tests* show that the 3 Paneltim® Antislip panels have a high slip resistance in both wet and dry conditions. Whereas the studded and 5 bar panels score well when used in areas where shoes are worn (R10 according to DIN 51130 standard), the orange peel surface scores well for both walkability with shoes and with bare feet (R10 according to DIN 51130 standard and B according to DIN 51097 standard).

Paneltim Antislip	Standard		Class
Studs	DIN 51130		R10
5 bar	DIN 51130		R10
Orange Peel	DIN 51130		R10
	DIN 51097		B

Application areas

Paneltim® Antislip panels provide an effective antiskid solution. You can use them for platforms in sheds, aisles or stairs, sanitary rooms, toilets and trailer floors.

Reasons for choosing the Paneltim® Antislip panel:

- Slip resistance (even with wet surface)
- Easy to process
- Easy to clean
- Wear-resistant
- Corrosion resistant
- No water absorption
- 100% recyclable
- Double rib for flexible dimensions

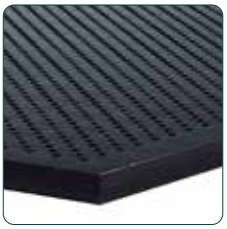
The Antislip panel in detail

Paneltim® Lightweight panels are light, strong and rigid with good resistance to deflection under load.

Surface	Material	Thickness (mm)	Cells (mm)	Dimensions (mm x mm)	Walll Thickness (mm)	Weight (kg/m²)
1 smooth 1 five bar	PP	50	50 x 50	1 200 x 1 000	3,3	12,10
1 smooth 1 studs	PP					11,80
2 orange peel sides	PP					11,30

Other colors & small PE panels also available on request with a minimum order quantity.

Variations



Studs

5 bar

Orange peel

Colors

Material		PE	PP		
Colors		Prime	Prime	NTP	Recy
	Grey				●
	White UV RAL 9010				
	Beige UV RAL 7032		●		
	Black				●

Scan the code and find out more about the Antislip panel!

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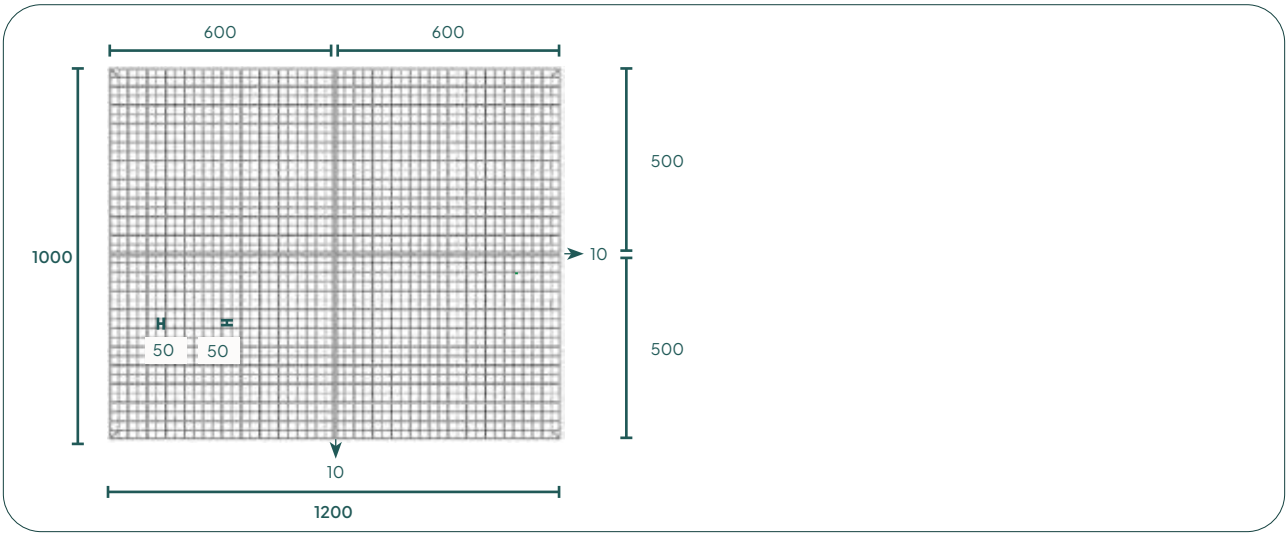
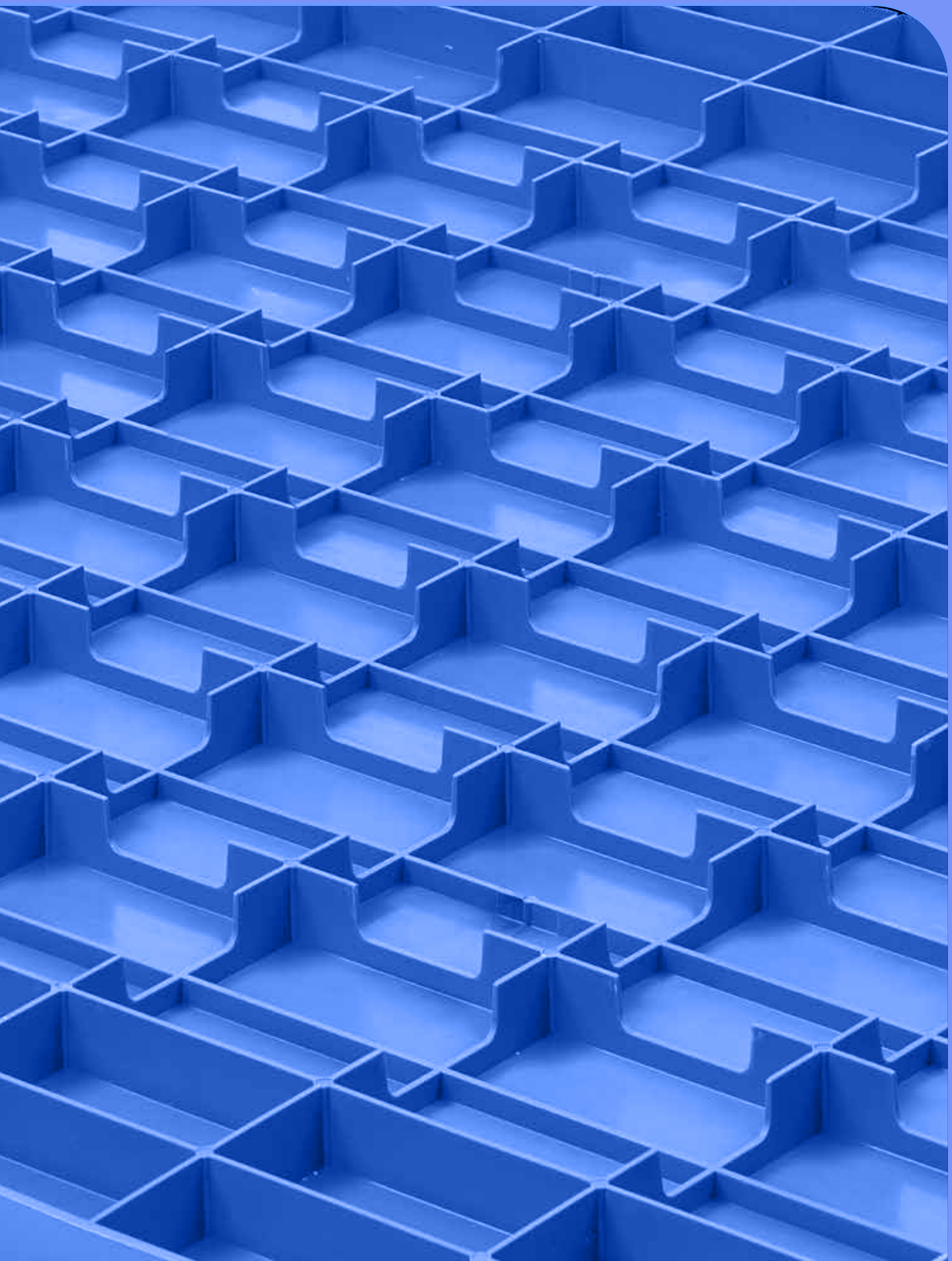
At the core of the Paneltim® Antislip panel*:

1200 x 1000



*All sizes are given in mm.

Paneltim® Interconnected



Paneltim at heart

Our new Interconnected panels are lightweight, strong, and easy to clean—like every Paneltim panel. The unique open-cell structure (100 x 100 mm) brings added flexibility, while reinforced top and bottom edges (100 x 50 mm cells) enable secure fastening without compromising adaptability. Clever engineering means all core advantages of Paneltim are present, ready to tackle any application—big or small.

Your panel, your way

The Interconnected panel adapts to your needs, whatever they are. Want better insulation? Simply add insulation foam. Need extra rigidity? Metal reinforcements fit right in. Prefer tidy cable management? Integrate cables inside the panel. Or use it just like any other Paneltim panel—the possibilities are yours to explore.

Reasons for choosing the Paneltim® Interconnected panel:

- Open cells
- Reinforced top and bottom
- Flexible in use
- Lightweight
- 100% recyclable
- Directly extendable with butt welding

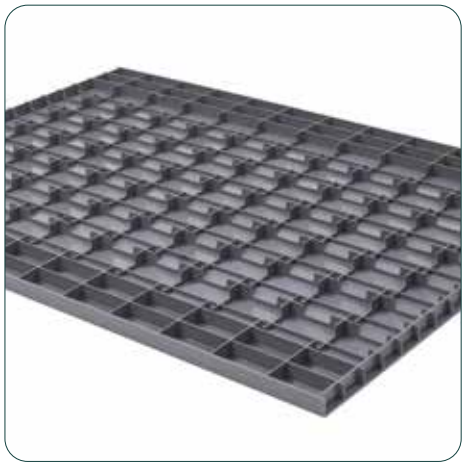
The Interconnected panel in detail

Paneltim® Interconnected (IC) panels have an open cell structure on the inside to allow for flexible use in a wide range of applications

Surface	Material	Thickness (mm)	Cells (mm)	Dimensions (mm x mm)	Walll Thickness (mm)	Weight (kg/m²)
2 smooth edges	PP	50	Center 100 x 100 Top & bottom 100 x 50	1200 x 900	3,5	9,1

Other colors & small PE panels also available on request with a minimum order quantity.

Cells



Cells of 100 mm x 50 mm on the top & bottom rows and 100 mm x 100 mm open cells in the center of the panel

Colors

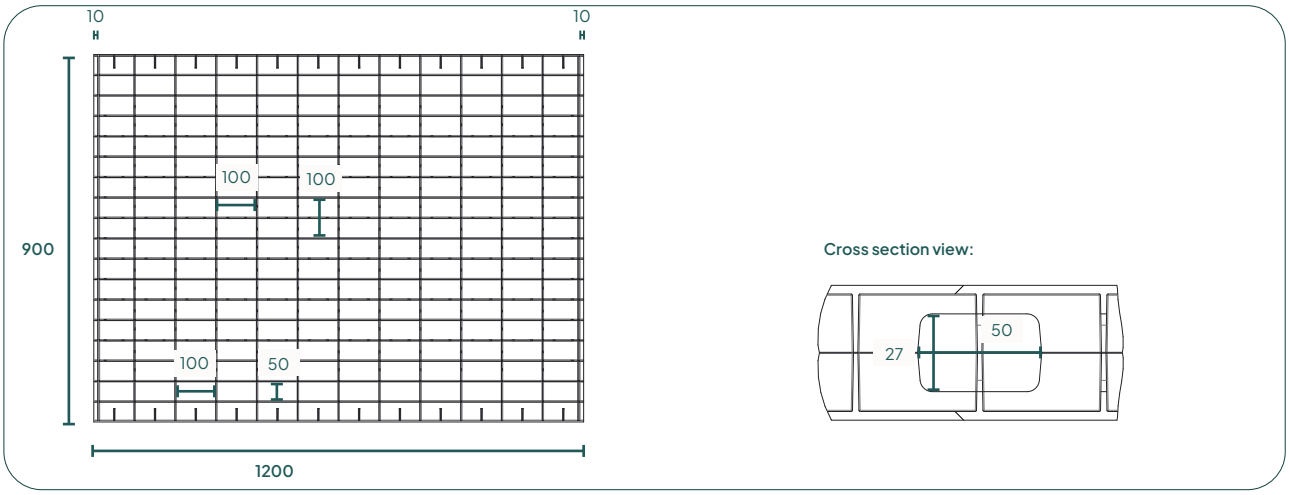
Material		PE	PP		
Colors		Prime	Prime	NTP	Recy
	Grey UV RAL 7001				
	Beige UV RAL 7032				
	Black				●

Scan the code and find out more about the Interconnected panel!

The above colors are indicative only and do not represent true colors. With recycled panels, variation in colors and color tones is possible. You will find the lead time and minimum order quantities in the price list. Not every color is available in every size. The panels are available in other colors on request. Contact us for more information.

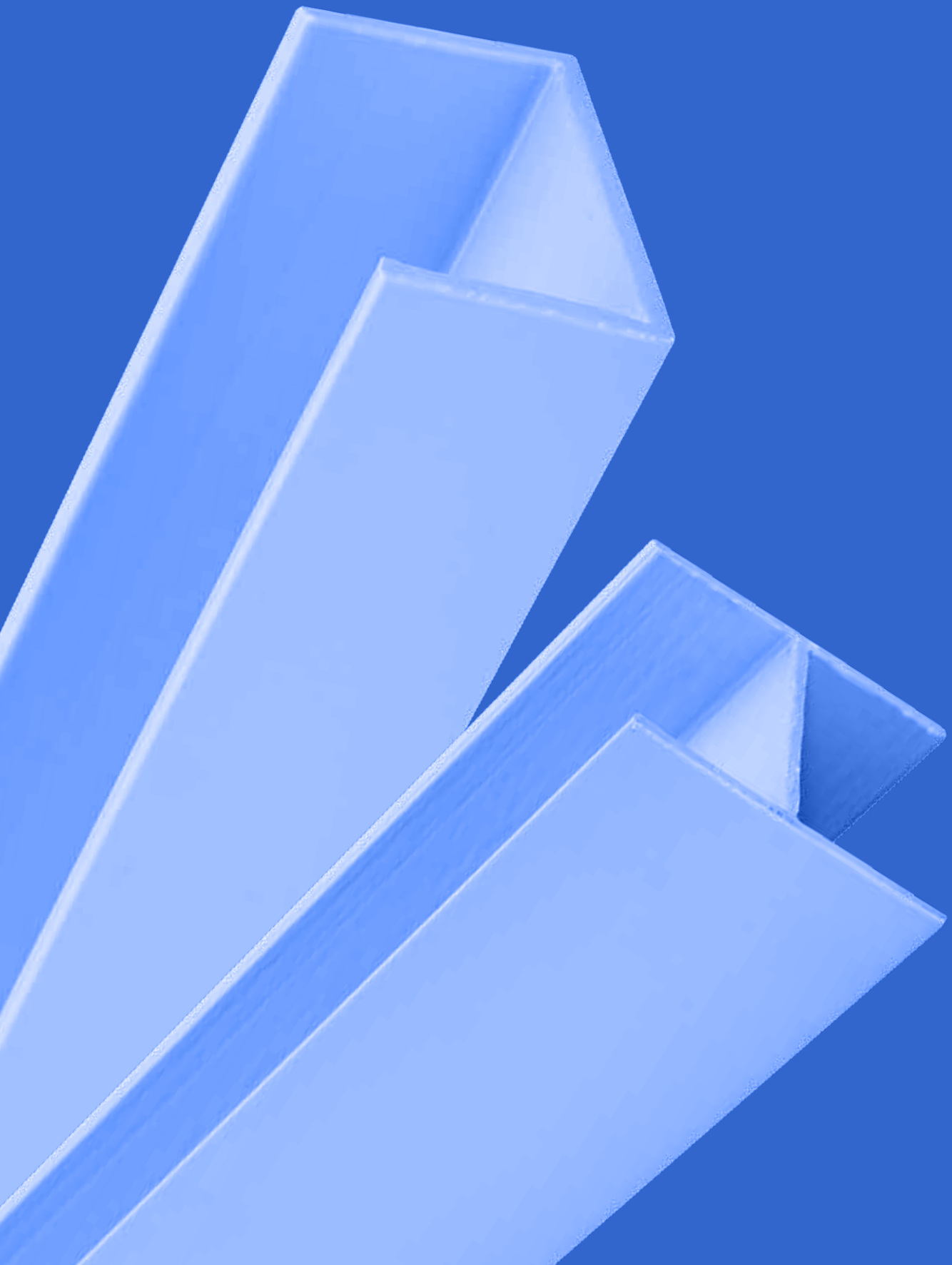
At the core of the Paneltim® IC panel*:

1.200 x 900



*All sizes are given in mm.

Paneltim® Profiles



Uses

Connection of panels

Thanks to PP or PVC H and U profiles you can quickly connect Paneltim® panels to each other.

Fix panels to floors, walls and ceilings

Screw U profiles to floors, walls and ceilings, place the Paneltim® panels in there and weld them to the profile.

Optimal finish

You can easily and neatly cover any open cells of a custom-cut Paneltim® panel with a U profile. PP H and U profiles ensure a perfect finish so that, once the profiles are welded to the panels, dirt has no chance to penetrate the panels.

Points of attention

Not suitable for liquid applications and weight bearing applications.

Take into account the possible expansion.

Most important benefits:

- Profile, panel and welding wire in PP
- Time saving through simple processing
- Windproof sealing of seams
- Prevents penetration of dirt and bacteria
- UV resistant
- Low maintenance
- Impact resistant

Profiles

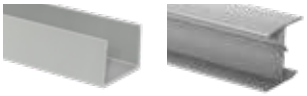
PP U-Profile

To connect panels.
To cover open cells.

PP H-Profile

To connect panels.

PP-PROFILES		depth	Length	Pack pieces	Pack rm	
WHITE						
PP	U-profile	50 mm	3 000 mm	10	30	
PP	H-profile	50 mm	3 000 mm	10	30	
BEIGE						
PP	U-profile	50 mm	3 000 mm	10	30	
PP	H-profile	50 mm	3 000 mm	10	30	

PVC-PROFILES		depth	Length	Pack pieces	Pack rm	
WHITE						
PVC	U-profile	50 mm	3 000 mm	10	30	
PVC	H-profile with V	50 mm	3 000 mm	10	30	
PVC	L-profile	50 mm	3 000 mm	10	30	
LIGHT GREY						
PVC	U-profile	50 mm	3 000 mm	10	30	
PVC	H-profile with V	50 mm	3 000 mm	10	30	

Although strong structures are best achieved by welding panels together, Paneltim also offers a limited range of fastening parts, which offer the possibility of quickly making light, yet sturdy and hygienic applications.

Paneltim® PP H and U profiles

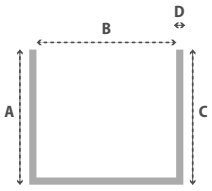
Paneltim® PP H and U profiles considerably speed up the creation of (lighter) constructions with Paneltim® panels. The profiles are both strong and durable, easy to process and to clean. Thanks to these profiles, creativity with Paneltim® panels really knows no limits.

Material

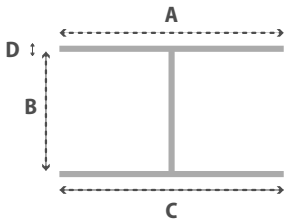
Paneltim® PP H and U profiles are made from PP. PP is very sturdy, durable and easy to process and to clean. Thanks to the addition of a UV stabilizer, the profiles are also UV-resistant.

Dimensions and colors

Paneltim® U-profile



Paneltim® H-profile



Profile	A mm	B mm	C mm	D mm	Length mm	Colors	
U-Profile (PP)	30	50	30	4	3 000		White UV RAL 9010
							Beige UV RAL 7032
H-Profile (PP)	64	50	64	4	3 000		White UV RAL 9010
							Beige UV RAL 7032
U-Profile (PVC)	40	50	40	2	3 000		White RAL 9010
							Light grey RAL 7001
H-Profile (PVC)	60	50	60	2	3 000		White RAL 9010
							Light grey RAL 7001
U-Profile (PVC)	30	35	30	2	3 000		White RAL 9010
H-Profile (PVC)	60	35	60	2	3 000		White RAL 9010

Paneltim® Choosing the right panel

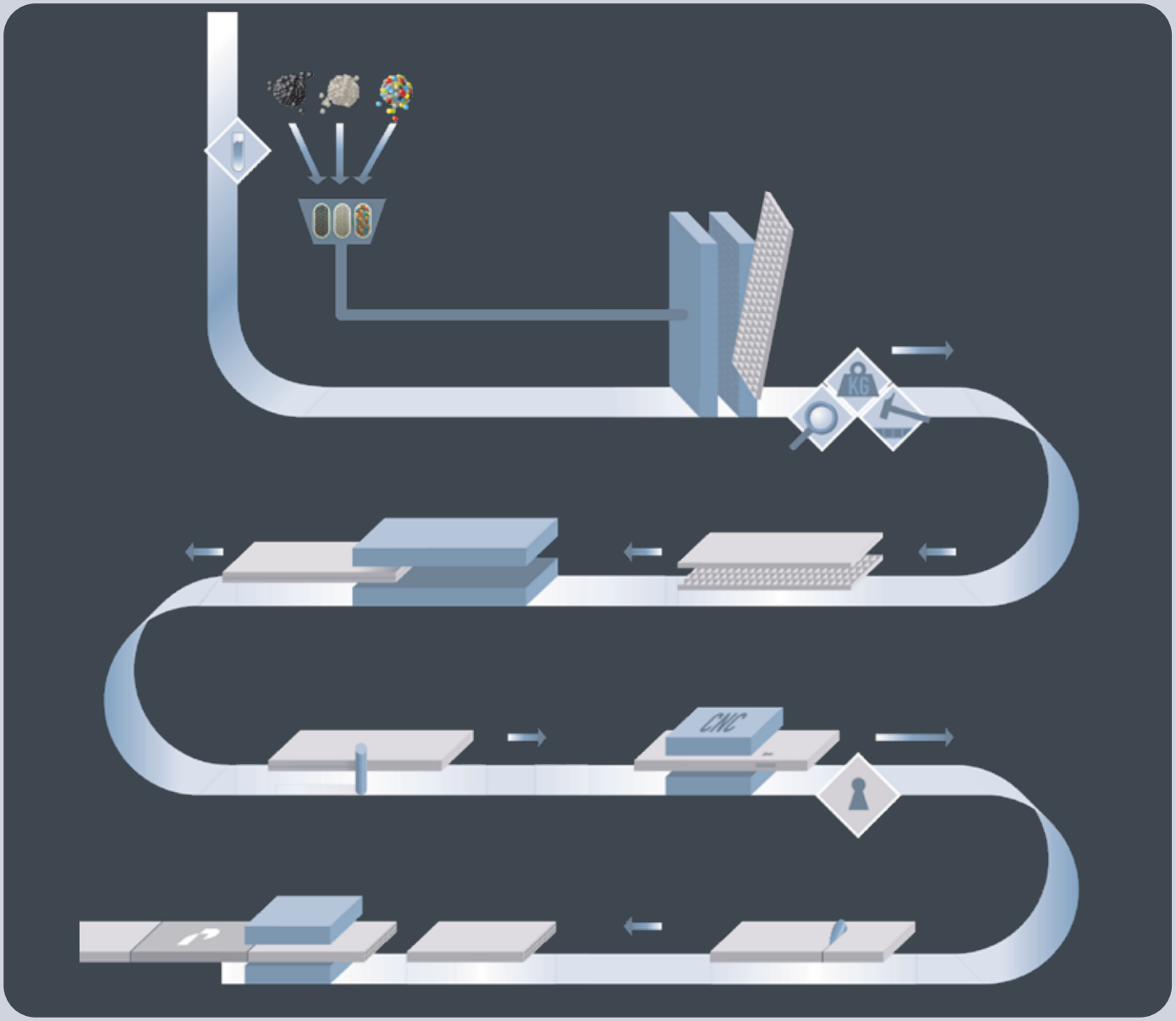
Production: from granule to panel

Prime and near-to-prime raw materials enter Paneltim® as round granules, recycled raw materials generally as grind (flakes).

The raw materials are mixed with the necessary pigments - also known as “masterbatches” - and, if needed, other additives such as UV stabilisers or fire retardants.

Half panels are then produced under high pressure in various injection molding machines. Our injection molding machines are among the largest in Europe. They have a clamping force of 1600, 1850, 3300 and 4000 metric tons.

The half panels are then welded together by large automated hot plate welding machines, after which they are stacked on pallets.



Raw materials for Paneltim® panels

Polypropylene or Polyethylene

Paneltim® panels are made from high-quality polypropylene copolymer (PP copo) or high-density polyethylene (HDPE), materials that have been tested according to European and international standards.

The panels therefore consist of only one raw material; 100% polypropylene or 100% polyethylene which simplifies its recycling at the end of its life.

Because Paneltim® panels are made from PP and PE, they are resistant to most chemicals and can be easily welded.

Polypropylene or Polypropene (PP)

Polypropylene is also known under the name polypropene.

Polypropylene is used in various product areas and can be processed and applied using various techniques such as injection molding, sawing, milling and drilling.

In most cases, Paneltim® panels made of PP are chosen because they are stronger, stiffer, and have a higher elastic modulus.
PP is also less sensitive to deformations and performs better at higher temperatures.

Plastic containers made of PP

Polyethylene or Polyethene (PE)

Polyethylene is also known under the older name of polyethene.

In some cases, Paneltim® panels in polyethene are used, for example at a very low operating temperature.
When existing PE products have to be added or combined with Paneltim® panels, preference will also be given to PE panels.

PE Pipes

Prime, near-to-prime & recy

Paneltim® panels are available in a wide range of options: in addition to the choice between PP copo and HDPE, you can choose from 3 different grades of PP: prime, near-to-prime or recycled raw materials.

Prime raw materials

Prime

Prime quality refers to virgin material with documented specifications. When your application has minimal tolerances in mechanical properties it is advisable to work with Paneltim® panels made from prime quality plastic. After all, the mechanical properties can be verified in the Paneltim® Technical Standard (PTS).

Over the years, Paneltim® has invested heavily in the research and development of our prime panels. We therefore have long-term data on the basis of which you can, for example, make reliable calculations and finite element analysis (FEA).

Near-to-prime raw materials

Near-to-prime (NTP)

The properties of Near-to-prime or “wide-spec” material may deviate to a certain extent from the specifications of prime material. Even though the quality of NTP is very high, the mechanical properties may deviate as the sources may vary.

Minimal technical or visual deviations may appear and long-term calculations cannot be made. Therefore, the PTS is not applicable to our wide-spec panels. However, for certain applications this may not be necessary and near-to-prime quality may suffice.

Recycled raw materials

Recy

50% of the panels produced by Paneltim® are made from 100% recycled raw materials. Paneltim® uses both "post-industry" and "post-consumer" panels that are processed into reusable raw materials.
These raw materials are inspected both externally and internally in the Paneltim® lab. After all, we want our recy panels to remain true to our light, strong and hygienic principles. Because this material is not always single source material, long-term data cannot be provided.
Keep in mind that tone differences can occur with recycled panels. Limited contamination of recycled raw materials with other polyolefins, other polymers and mineral fillers may appear.

Which panel for my project?

How rigid and strong are Paneltim® panels anyway? To give you an idea, here is a comparison between the Paneltim® prime panels, steel plate, solid plastic sheets and OSB boards. The indicated values are snapshots. These values are rounded off for indication.

Use outside

Always use prime panels with UV stabilisation in light colors for outdoor applications..

	Surface	Cell size mm x mm	Material	Thickness mm	Dimensions mm x mm	Wall thickness mm	Weight kg/m²
MULTIPOWER	Smooth	50 x 50	PP	50	2.600×1.000	4,5	12,80
					2.600×1.000	3,3	11,50
			PE	50	2.600×1.000	4,5	13,80
LIGHTWEIGHT	Smooth	100 x 50	PP	50	2.600×1.000	3,5	9,90
				20	2.600×1.000	3,5	7,70
			PE	50	2.600×1.000	3,5	10,50
				20	1.200 x 1.000	3,5	8,50
ULTRALIGHT	Smooth	100 x 100	PP	35	1.200 x 800	3,5	8,20
					1.200 x 1.000	3,5	8,20
			PE	35	1.200 x 1.000	3,5	8,20
ANTISLIP	Five bar	50 x 50	PP	50	1.200 x 1.000	3,3	12,10
			PE	50	1.200 x 1.000	3,3	12,50
	Studs	50 x 50	PP	50	1.200 x 1.000	3,3	11,80
			PE	50	1.200 x 1.000	3,3	12,10
	Orange Peel	50 x 50	PP	50	1.200 x 1.000	3,3	11,30

Consult the Paneltim® Technical Standard (PTS),
the standard for calculating structural applications with double-walled plastic panels,
to determine the panels are suitable for your application.

You can read more about the PTS on page 56

Paneltim® rigidity comparable to a steel plate…		Paneltim® rigidity comparable to a solid PP/PE sheet…		Paneltim® rigidity comparable to an OSB board…	
of … mm thick	but … % lighter	of … mm thick	but … % lighter	of … mm thick	but … % lighter
8	80	40	65	27	30
8	80	40	70	27	35
8	80	40	60	27	20
8	85	40	75	27	45
4	75	20	60	15	20
8	85	40	70	24	30
4	75	20	55	12	-10
6	80	30	70	21	40
6	80	30	70	21	40
5	80	30	70	21	40
8	80	40	70	27	30
8	80	40	65	27	25
8	80	40	70	27	30
8	80	40	65	27	30
8	80	40	70	27	35

Reasons to choose Paneltim®

STRONG

Thanks to their internal cell structure, Paneltim® panels are extremely strong. The cells ensure that the panels have excellent bending resistance in all directions.

LIGHT

Thanks to their hollow cell structure, Paneltim® panels are very light, while retaining their sturdiness and rigidity. This not only facilitates the processing of the panels, but also lowers the costs of transport and installation.

HYGIENIC

Paneltim® panels are resistant to many chemicals, repel dirt and are easy to clean with a high-pressure cleaner. Thanks to the closed cell structure, dirt has no chance to penetrate into the panels.

SIMPLE PROCESSING

Standard Paneltim® panels can be processed to all desired dimensions thanks to different welding techniques or mechanical connections.
The panels are also easily processed with traditional methods such as sawing, drilling, screwing,...

100% RECYCLABLE

Paneltim® panels always keep their raw material value because of their recyclability.

DID YOU KNOW THAT Paneltim® PANELS...

...OFFER ENORMOUS FLEXIBILITY?

The panels are welded together quickly and easily so that any desired dimension can be created. Both in the workplace and on site.

...ARE INSULATED?

Paneltim® panels are filled with air on the inside and therefore perform well in terms of thermal insulation in comparison with similar products. Air has a high thermal resistance. This insulation effect can be compared with the principle of a cavity wall or double glazing. For even more insulation, you can use our newest EPP panels.

...CAN ALSO BE USED OUTSIDE BY ADDING UV STABILISERS?

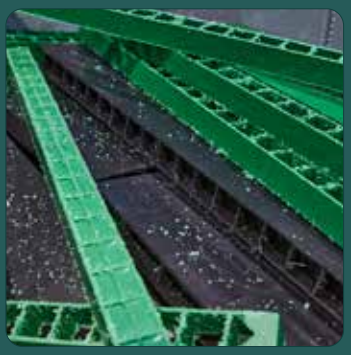
Paneltim® panels of prime quality are always provided with UV stabilisation and can be used outside in light colors even in sunny regions like Australia and Africa.
We always recommend using light colors for outdoor applications.

PANELTIM.COM

Ecological aspect of Paneltim® products

HOW OUR PRODUCTS AND PRODUCTION PROCESS IMPROVE OUR ECOLOGICAL FOOTPRINT.

- Paneltim products are made of polypropylene copolymer (PP copo) or high density polyethylene (HDPE).
- Through our Buy Back Program, we reclaim offcuts and select used panels, giving them new life through our recycling process.
- The panels are 100% recyclable: the closed structure contains no internal pollution and the panels are made from one raw material component (PP or HDPE) to facilitate the recyclability.
- 50% of all the panels that Paneltim produces, are made from 100% recycled materials.
- There is a systematic control. during the purchase of recycled materials.
- Rest material during the production or local manipulation is recycled by Paneltim or by external recycling companies. We can use this recycled material as a basis for production of new recycled panels.
- Paneltim® panels always keep their raw material value because of their recyclability.
- With a unique production process, Paneltim takes care of the environment and makes its contribution towards sustainable development.
- Paneltim achieved QA-CER certification. QA-CER recycled content assures the quality system related to the recycling process and use of recycled materials. Both the recycled content and the quality of the end product are addressed in order to support the principle of sustainability.



Paneltim® Processing of panels

Paneltim® plastic panels are easy to install and attach. The extensive processing and welding options make simple and quick assembly, installation and customisation possible.
With Paneltim® creativity has no boundaries.

Flexible dimensions

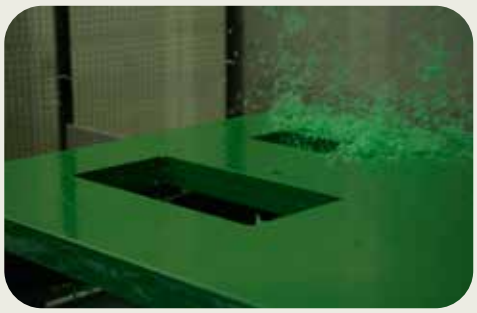
Standard Paneltim® plastic panels can be processed to any desired size via the butt welding technique or by means of hot air welding and/or extrusion welding.
The panels are easily processable with traditional methods such as sawing, drilling, screwing,... allowing you to easily cut them to the length or width that you need.

The light weight of the panels facilitates faster assembly of large pieces into one.

Multi-processable

Due to the internal cell structure of 50 mm x 50 mm, 100 mm x 50 mm or 100 mm x 100 mm of the panels, you can easily ensure that the outer edges of the panels remain closed, even with customisation. If you take the dimensions of the internal cells into account, even openings that are milled into the panels with a CNC machine are closed.

This way your construction not only looks good, you also prevent dirt from settling inside the panels.



Combining with other materials

Paneltim® panels made from PP or PE can be welded together with other materials in PP or PE, such as solid panels, pipes, and the like.

It is also possible to attach all kinds of pipes to the panels.

Installations in small spaces

The installation of a tank or other construction in a limited space can be carried out at the site. This is a major advantage compared to the installation of traditional tanks. Waterproof assembly and welding, making connections to existing pipe entrances, etc. - everything can be done on site.

Paneltim® processing

Welding

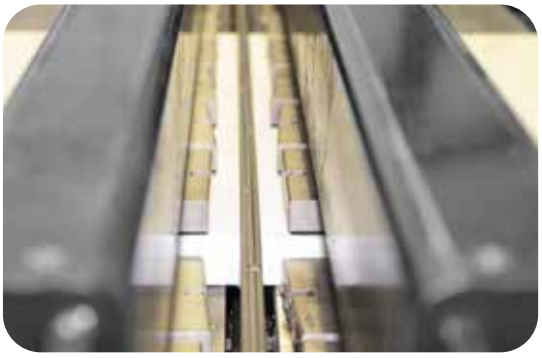
Paneltim® panels can be processed to all the desired dimensions and shapes by butt welding, hot air welding and/or extrusion welding. The short welding cycle shortens the processing time considerably.

Hot air welding

Hot air welding is a technique where welding wire is used to join plastic panels together. Triangular welding wire is preferably used for hot air welding. The welding wire is guided through a tube that is preheated by hot air. The correct temperature, speed and the right pressure on the weld is essential. This determines the quality of the weld. A thicker weld is not always a stronger or better weld!

Extrusion welding

Extrusion welding is a welding process in which the PP or PE welding wire is finely ground in the welding machine and then heated under pressure to a plastic, deformable mass with which two plastic parts are bonded together.
A 'welding shoe' presses the mass against the panels and determines the width of the weld. Through the exerted pressure and the speed with which the weld is applied, the welder determines the thickness of the weld. Here too the following applies: a thicker weld is not always a stronger or better weld! Always use the correct welding shoe and temperature!



Butt welding

With butt welding, two panels are attached to each other by fusing them. The panels are pushed briefly against a hot 'mirror'. This makes the edges a little 'liquid-plastic'. By then pressing them together, they cool and melt into one.

Always weld open sides together. With the large Paneltim® Multipower panels of 2,600 mm x 1,000 mm, the first cell is therefore narrower: 50 mm x 25 mm. This way material loss during welding is minimized.

Reinforcements

Because Paneltim® panels are rigid and strong, fewer reinforcements are often required than with other materials. This saves you a lot of expensive working hours and expensive reinforcement material.

This does not mean that you should save on reinforcements. You will learn in the PTS (Paneltim® Technical Standard) whether it is appropriate for your application to use reinforcements. In some cases, you calculate this based on formulas, for more complex constructions or if you want a faster and more precise result, use a computer program that allows you to perform finite element analysis (FEA).

The PTS also explains which factors you should take into account if you opt for a certain reinforcement. Please contact us for further information. Here are a few options.

Plastic reinforcements

Every creation requires different reinforcements. Sometimes a plastic rim or lid is sufficient. In other cases you can opt for internal or external reinforcements.


Lid as reinforcement


Edge reinforcements


Internal reinforcements


External reinforcements


External reinforcements


Internal reinforcements

Metal reinforcements

Of course it is also possible in many cases to apply metal reinforcements. Materials expand and contract when exposed to temperature changes. You definitely know this phenomenon in bridges, highways and buildings where a joint is always provided to accommodate the expansion. Every material has his own specific thermal expansion behaviour.
In your design, bear in mind that the expansion coefficient of plastic is different from that of metal, so provide sufficient play.

Transport

Paneltim® plastic panels are light, yet rigid and strong. This offers major advantages in the transport of structures. If the construction is performed correctly, it can easily be put on a truck without fear for stability.

Transport of large constructions

Even complete swimming pools and large air scrubbers can be lifted relatively easily and quickly on and off a truck and brought to the destination with special transport. If constructions are really too large, it is often decided to prepare the construction in several pieces, in the workshop. The different parts are then taken to the site and welded together on site. This way special transport is avoided with large creations.

Transport large air washer

Transport large swimming pool

Extreme transport

Mounting

Sometimes it can be interesting to weld plastic hoisting eyes to the structure, so that a crane can easily lift the structure.

Rectangular hoisting eye

Rounded hoisting eye

In many cases welding together on site

Of course it is also possible to customise pieces in the workshop and weld the various parts together on site. This is even possible in very small spaces.

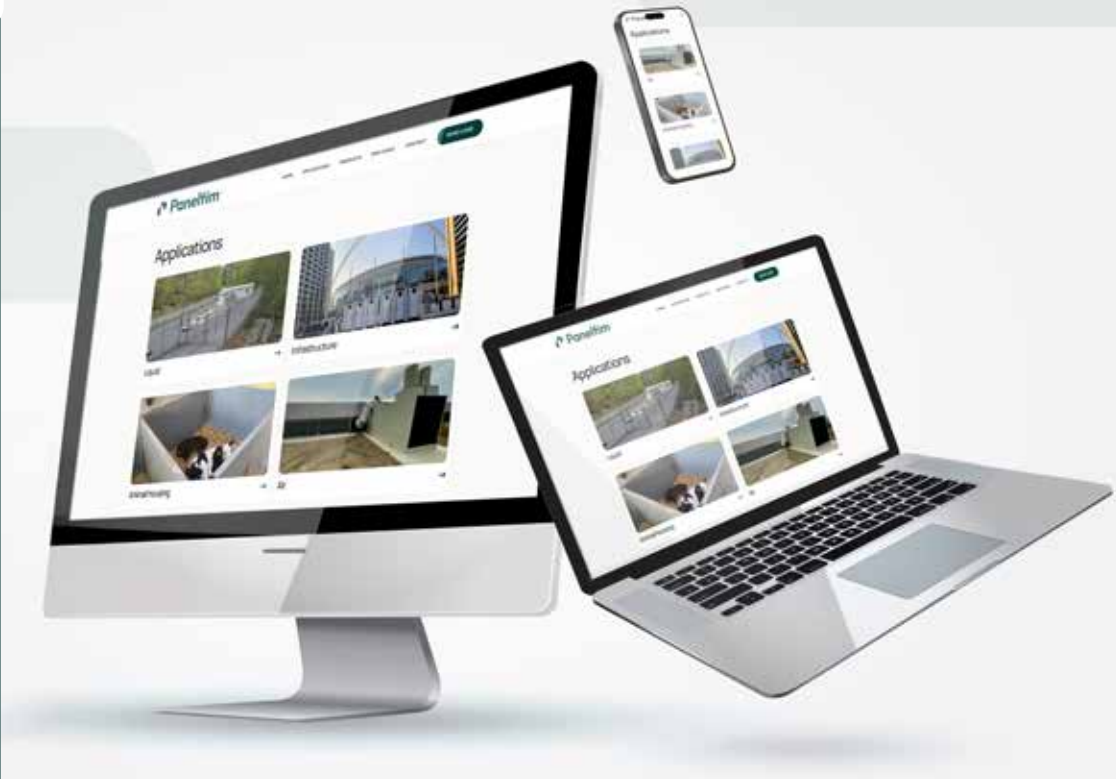
Pool welding on site

Building a tank in a small space

Welding modules together on site

Paneltim

We empower creators
to **build what lasts**



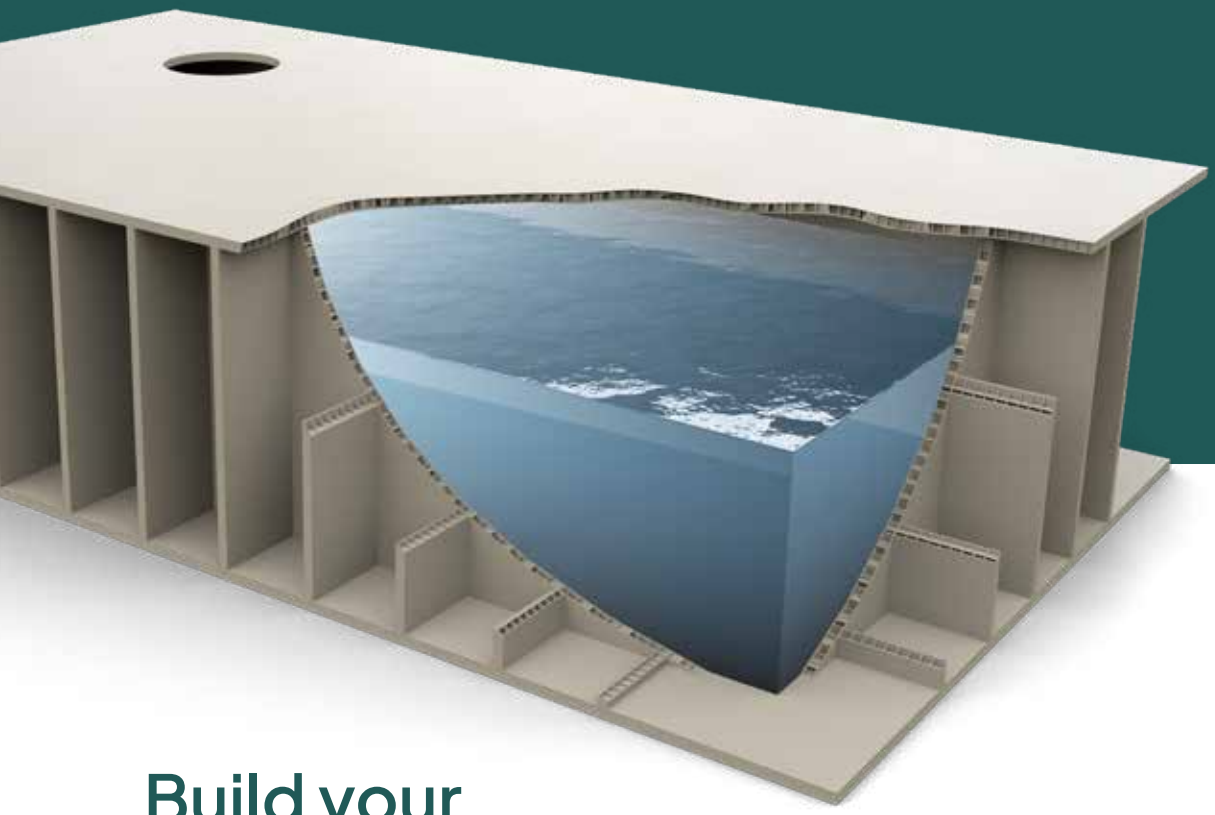
The Paneltim App

Your digital sales buddy 24/7

What WILL the app offer YOU?

Our app is your personal Paneltim colleague that travels everywhere with you on your mobile devices.
It's your sales buddy, always ready to inspire your contacts about the endless possibilities of Paneltim®.

CONTACT US FOR MORE INFORMATION.



PTS

Build your structures quickly and safely

Consult the PTS, a standard for calculating structural applications with our twin-walled plastic panels.

Reasons to believe in Paneltim®

Watch the video:

Paneltim® Technical Standard

It has become necessary to use not only lightweight, but also sustainable and ecological materials in new applications. The Paneltim® Technical Standard (PTS) provides all the necessary data to accelerate and improve the design of light and durable Paneltim® panel structures.

The PTS not only provides guidelines for manufacturing and installation, but also in regard to data, calculations and practical examples. The PTS forms a strong, scientific basis for the design, construction and welding of structures made with Paneltim® panels out of prime materials. It provides guidelines for design safety in order to minimise the risk of unexpected malfunctions. The PTS is only applicable for Paneltim® panels made out of prime materials.

Orientation of the panels

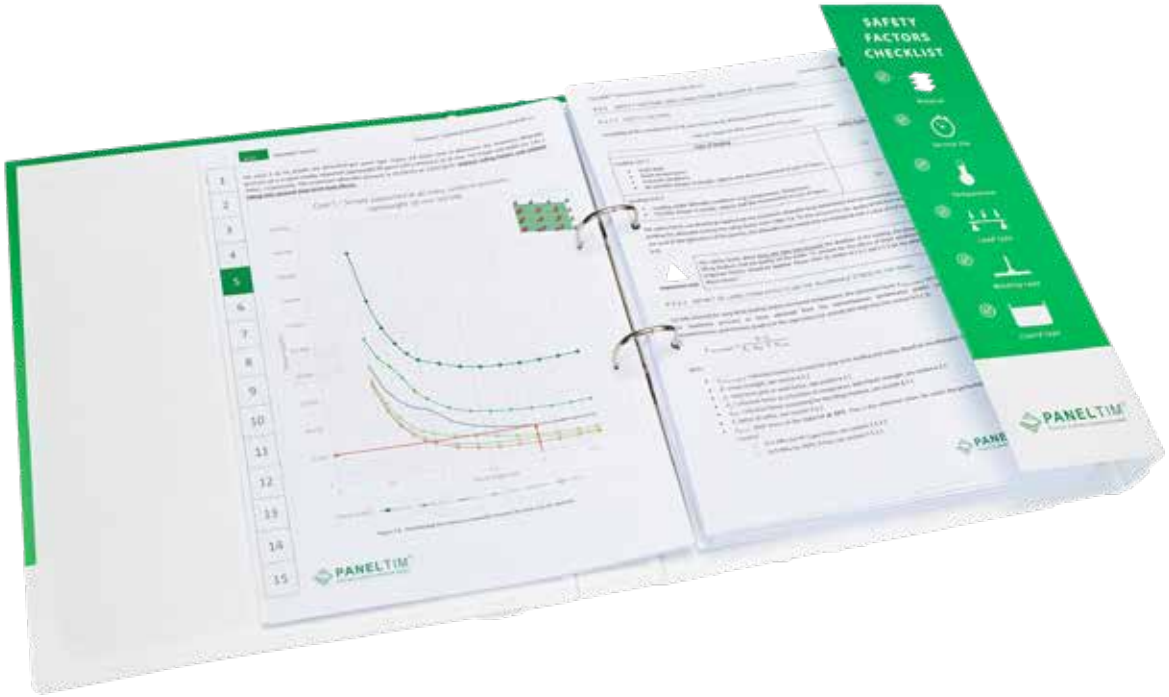
Multipower AND Antislip

Paneltim® Multipower and Antislip panels have a square internal cell structure of 50 mm x 50 mm. Thanks to their symmetrical structure, these panels will be equally strong regardless of the orientation of the cells.

Lightweight

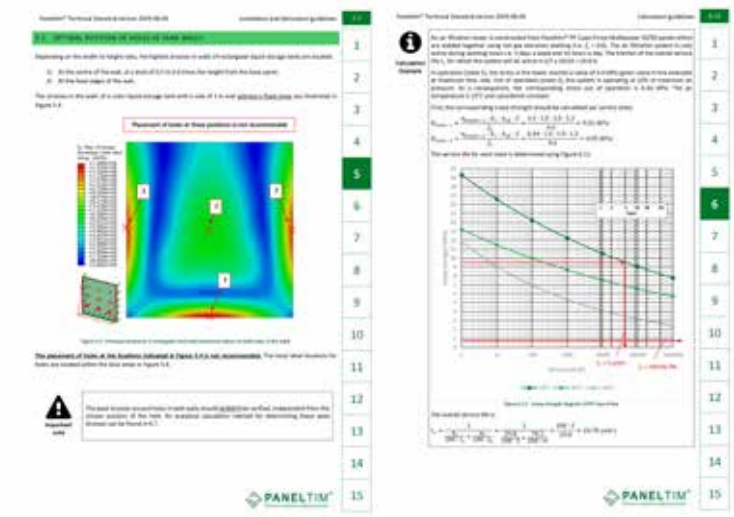
However, when using Paneltim® Lightweight panels, it makes a difference whether the cells are upright or flat in a structure, because their internal cell structure is rectangular (100 mm x 50 mm). Keep the orientation of the panel in mind for the specific load case in your application.

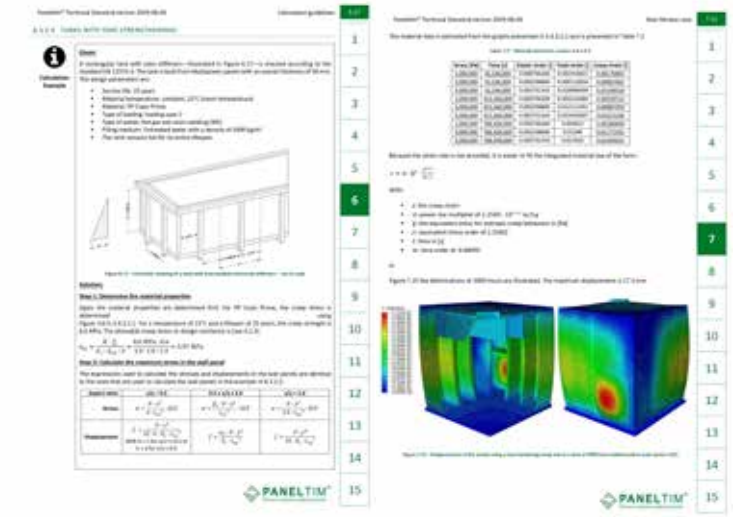
For additional information about mechanical connections, orientation of the panels or placement of the openings, consult our Quick Guide to Paneltim® and the PTS.



Paneltim® Technical Standard

Some examples of topics that are covered in the PTS:





Register to always have access to the latest technical information and the Paneltim Technical Standard:

http://bit.ly/PTSRegistrationBrochure

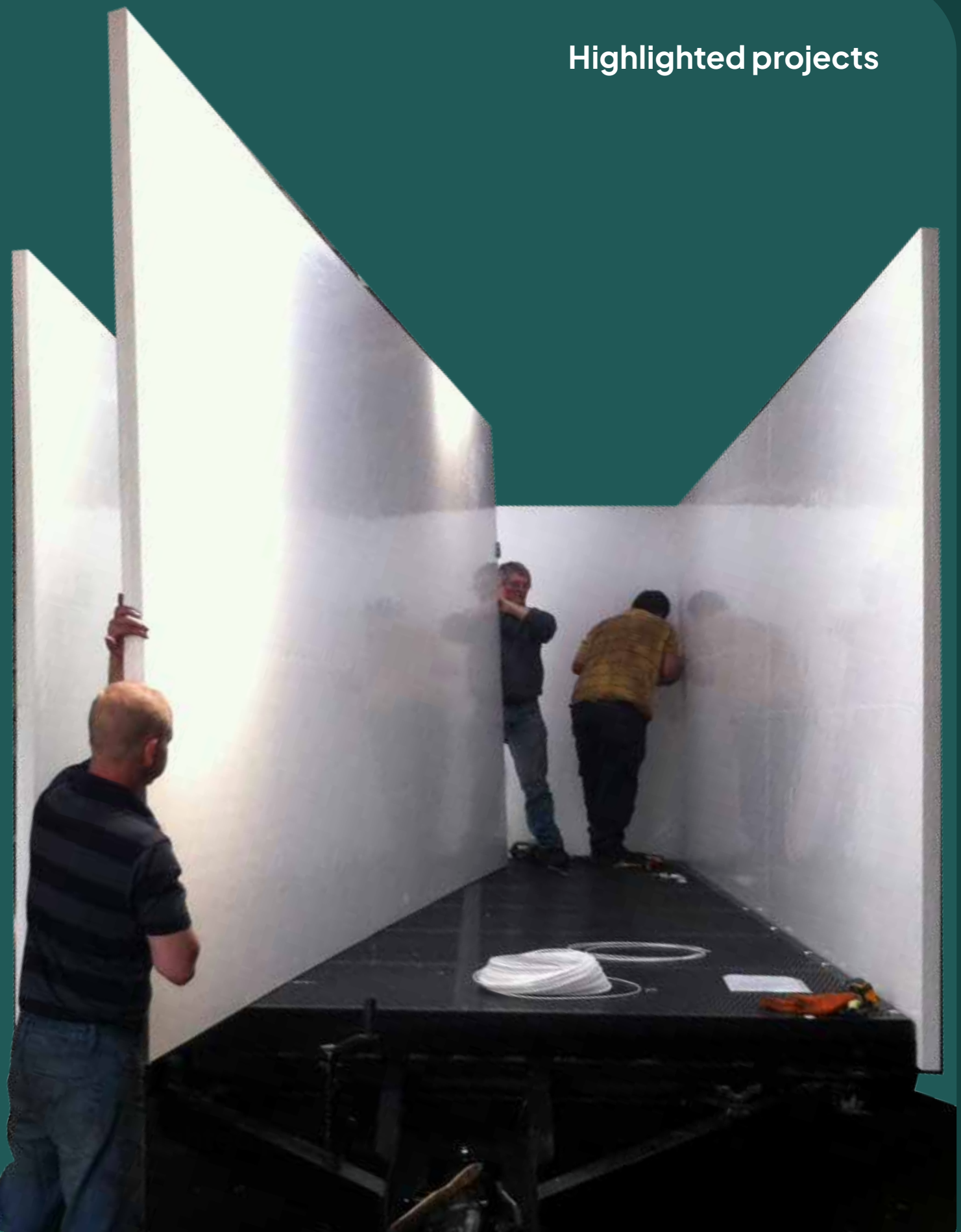
SAFETY FACTORS CHECKLIST

- Material
- Life cycle
- Temperature
- Type of load
- Type of weld
- Type of fluid

Paneltim

We empower creators
to **build what lasts**

Highlighted projects



Highlighted projects

Paneltim® Multipower

Underground water treatment tank

Project of: Greenforce OÜ - Estonia
Product: Paneltim® Multipower 50 mm PP prime
Challenge: Constructing and installing an underground tank in which dirty water from private homes and apartments is treated.

Benefits:

Due to the rigidity of Paneltim® panels, it is relatively easy to make a construction of this size.
"A large part of the tank was prepared in the workshop. Then the pieces were taken to the yard where we only had to weld them together," said Kaido Laosma (Greenforce). In order for the tank to be able to resist rising ground water, the tank is placed on a concrete floor plate and the sides are additionally supported by, e.g., concrete rubble.

Lobster tanks

Project of: Fusion - Australia
Product: Paneltim® Multipower 50 mm PP
Challenge: Building lobster tanks with as few reinforcements as possible, without the walls bending.

Benefits:

Before Fusion decided to build the tanks with Paneltim® panels, they carried out detailed material analyses. This way they were sure that the panels would be strong and rigid enough to prevent bending.
Because fewer reinforcements had to be applied than had been the case with solid sheets, the project could be carried out much more efficiently.

Monoblock swimming pool

Project of: H2O Construct Gekiere bvba - Belgium
Product: Paneltim® Multipower 50 mm PP prime
Challenge: Construction of a swimming pool that is light and UV-protected and that could be moved through a narrow passage in one piece.

Benefits:

Not only the pool, but also the seats, stairs and the cover of the swimming pool roller shutter can be produced quickly and easily by butt welding and extrusion welding with Paneltim® panels with UV stabilisation. In this case the pool had to be transported through a small passage.
The entire structure was strong and light enough to transport it vertically through the passage.

Paneltim® Lightweight 50 mm

Aeration system for cheese ripening

Project of: Voet en Donkers - The Netherlands
Product: Paneltim® Lightweight 50 mm PP near-to-prime
Challenge: Building modules that can be quickly installed on site.

Benefits:
Voet en Donkers has been building climate control installations for cheese makers with Paneltim® Lightweight panels for years. They bring the installation to the cheese factory in different modules, which speeds up assembly. The enclosures of the process technology and the air collectors that are built with the panels are light, strong and easy to clean.
An important advantage is also that cables and, for example, electrical cabinets can easily be mounted against the panels.

individual water treatment planT (IBA)

Project of: TopolWater - Czech Republic
Product: Paneltim® Lightweight 50 mm PP near to prime
Challenge: Offering a solution to individual households that are not connected to sewerage. The installation must be able to be produced on a large scale.

Benefits:
Cost saving was an important reason for TopolWater to choose Paneltim® Lightweight panels. They are strong enough for this application because the tank contains limited water volumes and is reinforced by the internal compartments. In addition, the use of backfill is protecting the installation against possible ground water shifts. Another advantage of the panels is that they are processed extremely fast.

Cleaning cabin

Project of: ROTH Kunststoffen - Switzerland
Product: Paneltim® Lightweight 50 mm PP
Challenge: Building a room for a machine manufacturer to degrease produced parts.

Benefits:
Paneltim® panels are light and rigid, so the panels hardly needed support to weld them together efficiently.
As a result, Roth only needed half the expected assembly time.
2 panel types were combined here; the walls are made of Paneltim® Lightweight panels, the bottom consists of Paneltim® Antislip panels with a five bars surface.

Paneltim is a manufacturer and distributor of PP and PE panels.
Neither the processor nor Paneltim can be held responsible for the results of other projects. We would love to put you in touch with experts in this field.

Highlighted projects

Paneltim® Ultralight 35 mm and light weight 20 mm panels

Air collector

Project of: Plastitech - Switzerland
Product: Paneltim® Lightweight 35 mm PP near-to-prime
Challenge: Build rectangular air collectors that can be quickly mounted on site.

Benefits:
Due to the light weight of the panels and because they can be welded together quickly, Plastitech builds square air collectors with Paneltim® panels. The collectors are deliberately square and not rounded because they stack so well during transport and can be mounted quickly and easily on the ceiling and against walls.
An additional advantage is that dust does not accumulate on the collectors. The 35 mm panels are stiff enough to guarantee stability due to the reinforcements in the collectors.

mobile toilet

Project of: George Shaw & Sons Manufacturing - England
Product: Paneltim® Lightweight 20 mm PP prime
Challenge: Years ago, George Shaw made his first trailer with Paneltim® panels. At that time, the market was not ready for it yet. Trailers were then mainly made of wood and fiberglass-reinforced plastic.

Benefits:
George Shaw used to use 50 mm panels, but now he makes trailers with Lightweight 20 mm. The thin panels are strong enough and this reduces the weight of the trailer. Paneltim® Antislip panels are ideal for the floors. Optimal hygiene is guaranteed because Paneltim® panels are easy to clean. The trailers require little maintenance and will last a lifetime. For an exclusive look, George Shaw covers some of the trailers with a film.

Storage cabinet

Project of: Platensa - Peru
Product: Paneltim® Lightweight 20 mm PP
Challenge: Making cabinets quickly which are easy to clean.

Benefits:
Paltensa makes cabinets from the thin Paneltim® Lightweight panels. These are rigid enough for the weight they have to bear so that the shelves do not bend. By sawing right next to a closed cell, the panels remain closed all around.
The panels have a short welding cycle so that the cabinets are assembled quickly and securely.

Paneltim® Antislip

Platform around tanks

Project of: CPO - France
Product: Paneltim® Antislip 50 mm five bars
Material: PP prime
Replacement: Metal is eaten away by chemicals
Challenge: Create a platform inside the thanks*, in material that is not affected by the chemicals. In addition, safety had to be guaranteed by a non-slip floor.

Benefits:
The panels have a high slip resistance and are resistant to the chemicals. Moreover, they are strong, yet Lightweight.

* For chemical applications, contact Paneltim for more information.

Docks for holiday rental

Project of: Plastvo Oy - Finland
Product: Paneltim® Antislip 50 mm studs
Material: PE prime
Replacement: Wood - wooden docking rots.

Benefits:
This entire dock consists of the same material: both the anti-slip panels and the floating pipes are made of PE. This way, the difference in expansion of the materials at varying temperatures need not be taken into account.

Swimming pool with anti-slip bottom, walls and stairs

Project of: K.IM.S. GmbH - Germany
Product: Paneltim® Antislip 50 mm orange peel
Material: PP prime
Challenge: Pilot project

Benefits:
The orange-peel motif has a good anti-slip function when one wears shoes and when one walks barefoot. Which is why K.IM.S also made the stairs and the floor with it. After all, the panels feel pleasant on bare feet. Moreover, the panels are easy to assemble on site and to weld to each other. The panels are also easy to clean.

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