



Some miracles happen...



...some are invented.



Index

| | | | |
|----|-----------------------------------|-----|-------------------------------------|
| 7 | CHAPTER 1: RESYSTA | 69 | CHAPTER 4: PROCESSING |
| 7 | The Invention | 71 | sawing, milling, drilling |
| 9 | The Miracle | | sanding, painting, bending |
| 11 | Properties | 73 | CHAPTER 5: CONNECTORS |
| 13 | The Future Formula | 75 | screws, nails, glue |
| 15 | CHAPTER 2: THE HOUSE | 77 | CHAPTER 6: COLOR CONCEPT |
| 17 | impressions | 79 | individual coloring |
| 23 | cross section | 83 | CHAPTER 7: FURNITURE |
| 31 | CHAPTER 3: ARCHITECTURE | 85 | armchairs, loungers and tables |
| 33 | ARCHITECTURE OUTSIDE | 87 | CHAPTER 8: MARINE |
| 35 | decking system | 89 | yacht outside |
| 37 | wall cladding | 91 | yacht inside |
| 39 | wall cladding system | 93 | CHAPTER 9: PROPERTIES |
| 41 | cladding general | 95 | basic properties |
| 45 | wall and ceiling | 97 | technical data |
| 47 | sun and privacy shields | 99 | CHAPTER 10: PRODUCT OVERVIEW |
| 49 | footbridges, harbours and bridges | 109 | CHAPTER 11: REFERENCES |
| 51 | fences, balconies and cladding | 111 | projects and awards |
| 53 | handrails | 117 | CHAPTER 12: ENVIRONMENT |
| 59 | ARCHITECTURE INSIDE | 119 | zero emission, recycling |
| 61 | decking | | |
| 63 | wall and ceiling | | |
| 65 | cladding general | | |



The Invention.

Our aim was to develop a weather and water resistant material with the noble look and feel of wood. A material obtained from a renewable resource, resistant to water, sun, wind and cold. A material which does not splinter over time, saves resources and is always of a consistent, high quality.

After 15 years of intensive research we succeeded - Resysta was born. Since then, the material has passed several international stress tests under extreme conditions. As a hybrid material mainly consisting of rice husks, Resysta is not only extremely resistant; it also sets new standards of sustainability.

Furthermore, Resysta can be supplied in any shape and color. Thus, opening up completely new horizons for architects and designers - they can now realise their dreams with the visual appearance and structure of wood without being stopped by the material's limits.

As proud inventors here we only wish for one thing: that you discover the miracle of Resysta for yourself.



The Miracle.

» Resysta is bipolar therefore it does not absorb any water, but can come into contact with it. «

Owing to this intriguing fact, glazes and varnishes are readily applied to the material and it can be bonded. When the surface becomes damp, Resysta engages with it, resulting in a velvety feel. Totally unique, totally comfortable - totally Resysta.



Characteristics which leave a lasting impression.

WATER RESISTANCE:

Since Resysta does not absorb any water, it can neither splinter, crack nor swell - it is exactly these properties that make it an extremely durable material.

WORKABLE LIKE WOOD:

Resysta can be glued, sanded, milled, drilled, sawed and colored.

SUSTAINABILITY:

Resysta mainly consists of rice husk - a by-product of rice production. Rice husk is a renewable resource that can be replaced in short cycles.

100% RECYCLABLE:

Resysta can be pulverised and new Resysta products continuously be processed out of it.

SKID RESISTANCE:

Even in contact with water, Resysta offers significant skid resistance.

»Resysta ist extrem resistent und provides for an especially beneficial eco-balance«

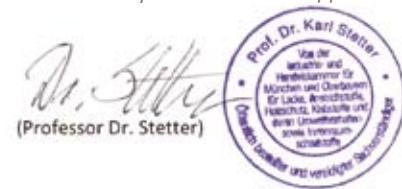
Technical and ecological assessment of the new material Resysta.

Resysta **looks like wood** and offers high mechanical strength, thermal stability as well as chemical **resistance**. **Unlike wood, Resysta is swell-, splinter- and crack-free, does not grey or fade and withstands fungal decay**. Products made of Resysta are therefore **very durable** without requiring special care and maintenance. This material is **a real alternative to tropical wood**.

Owing to these characteristics, Resysta is especially suitable for outdoor use, e.g. it can be used for garden furniture, outdoor flooring, as well as wellness and pool areas. Simply everywhere, high strain and aggressive weather and environmental influences become effective.

Furthermore, products made of Resysta provide for an **especially beneficial eco-balance**. In terms of hygiene, Resysta also offers superior characteristics, as it is not harmful to health and does not emit noxious substances into its surroundings. Like most synthetic materials, the polymeric material part of Resysta is made of petroleum. Therefore, only a minute quantity of crude oil is necessary. Both components of Resysta, the polymeric material as well as the reinforcing fibre, are **100% recyclable**, as the thermoplastic material can be transformed into other products as necessary. These results show that relatively, Resysta provides for an **especially beneficial eco-balance**, which is further enhanced by its durability, **low maintenance** and the absence of insecticidal and fungicidal preservatives. In short: **Resysta deserves the title »The better wood.«**

Prof. Dr. Karl Stetter Chemist with diploma
Specialist in varnishes, surface coating compositions,
wood preservation, adhesives and their effect on the
environment as well as interior harmful substances:
Officially appointed and authenticated by the Chamber
of Commerce and Industry for Munich and Upper
Bavaria



The Future Formula is called Resysta.

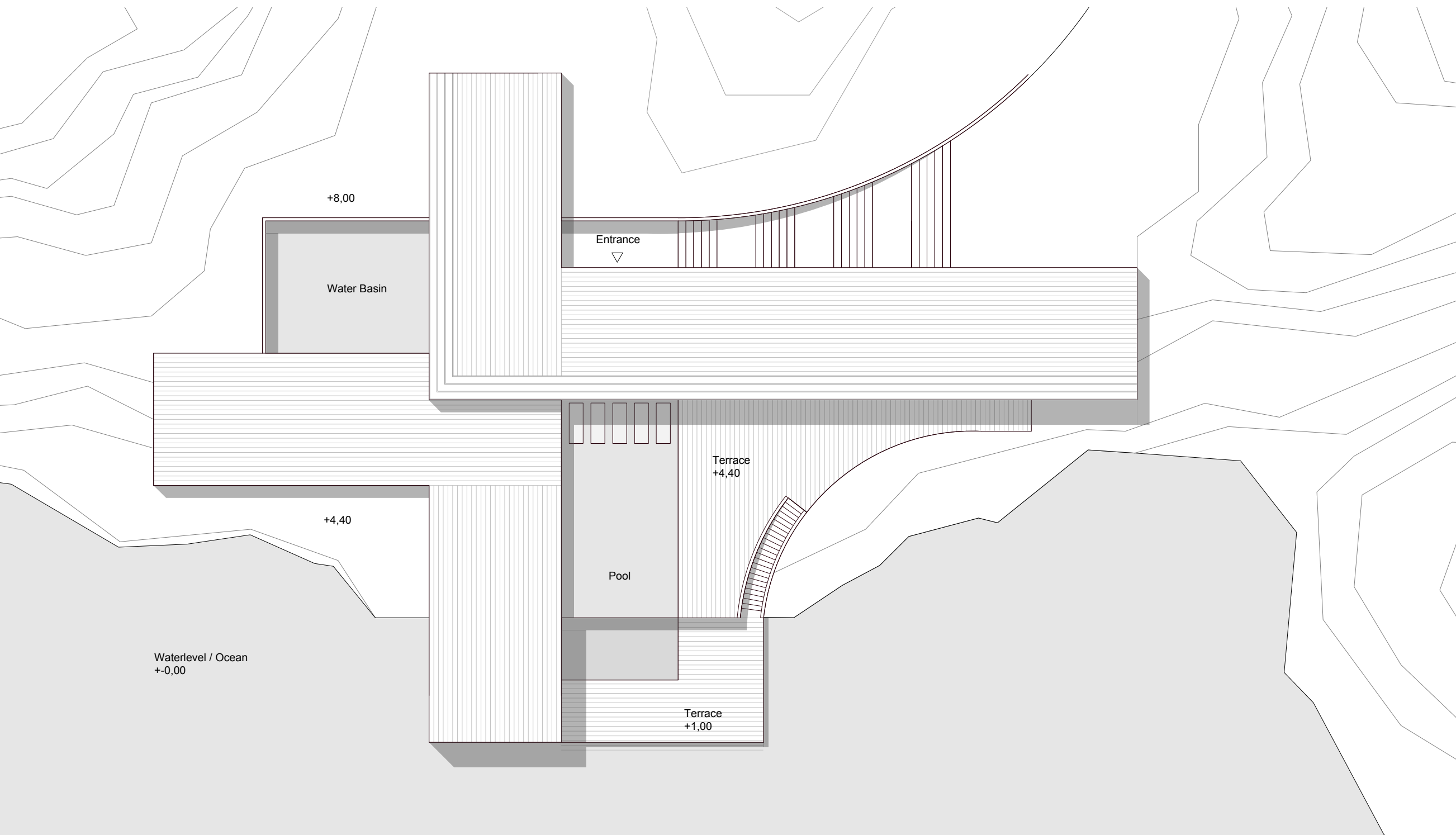
Already today, Resysta meets tomorrow's technical and ecological demands. Owing to its durability and sustainability, completely new designs are possible. The fibre reinforced hybrid material is produced of approx. 60% rice husk, approx. 22% common salt and approx. 18% mineral oil, which makes it both environmentally friendly as well as extremely weather resistant against sun, rain, snow or salt water. At the same time Resysta requires minimal care and offers the look and feel of wood. Water resistant surfaces with the look of wood are Resysta's future. Wait and see!

Raw materials used:



Approx. 60 % rice husk + approx. 22 % common salt + approx. 18 % mineral oil = Resysta

Resysta patent pending.



Unlimited creativity.

Wood is one of the most natural and oldest materials in the world. It spreads a feeling of warmth and protection and creates interesting contrasts. However, Mother Nature's master plan did not consider the production of outdoor furniture, wall claddings, terraces or ship decks out of wood. In steady contact with humidity, wood swells, splinters, weathers and provides limited flexibility. Unlike Resysta. It looks and feels like wood, but it is not. Owing to its extreme resistance to water and the elements, it can be used for maritime and wet area applications - where wood has little chance.

Extreme bending or permanent immersion in water - with Resysta, design limitations are a thing of the past. However, one does not have to be without the look and feel of wood. Resysta can be processed in a similar way to wood or applied in layers to other materials. The results are light, dynamic shapes which open up new horizons for design.





The House of Resysta.

"We planned a house, on the ocean's edge; a house that establishes a harmonious dialogue with nature and appears to be shaped out of one homogenous piece. Resysta made it possible."

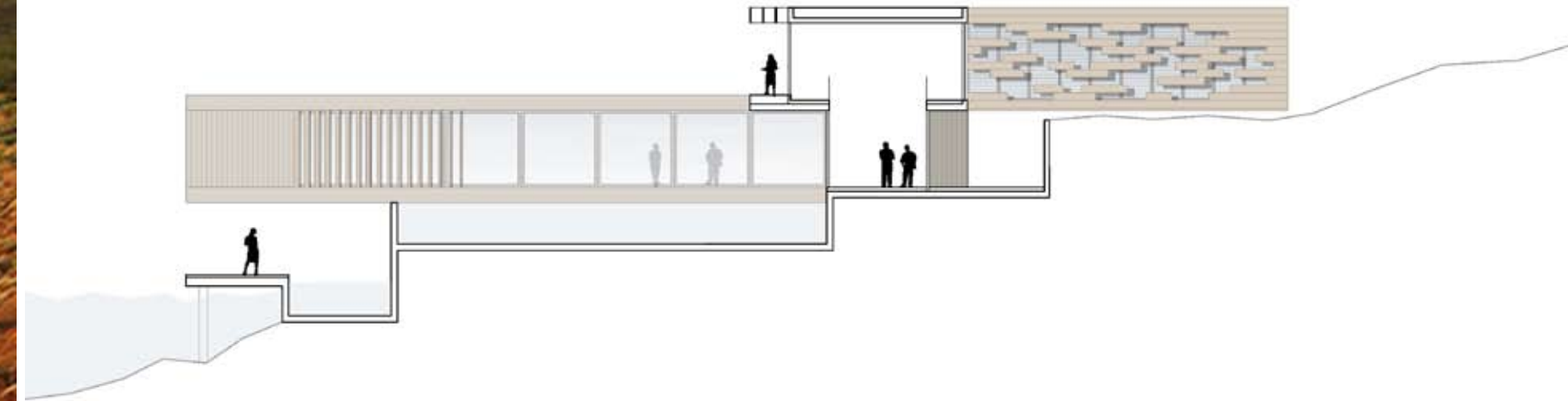
Architects Maximilian Braun, Ulrich Schimtenings, Frederik Werner

The overlap of two L-shaped blocks forms a landscape of terraces which generates a variety of appealing exterior sitting areas. The house becomes a workable sculpture, blending into the landscape.

In addition to four bedrooms with en suite bathrooms, SPA, library, studio, living area and the big open kitchen, the house offers tiered terraces and a pool setting that merges with the ocean. The sculptural, clear and characteristic appearance of the building is underlined by the consistent application of Resysta for all claddings that includes roofs, facades and terraces. The different Resysta applications allows for a homogeneous image of this architecture. A Building, not only to be occupied, but also to be discovered.



cross-section, EAST elevation



Whether it be a winter storm in Normandy or rainy season in Bali - even the most extreme weather conditions cannot have an impact on the house of Resysta. Regardless of the environment it is in, the house of Resysta is a luxurious refuge to its residents which perfectly combines aesthetics and functionality - for at least half an eternity!

"Resysta enables you to bring in new ideas, during the planning phase of the house."

Architects Maximilian Braun, Ulrich Schimtenings, Frederik Werner



Resysta House – plan of ground floor

The following profiles have been used on the ground floor:

1 RESYSTA WC FP 300x35 

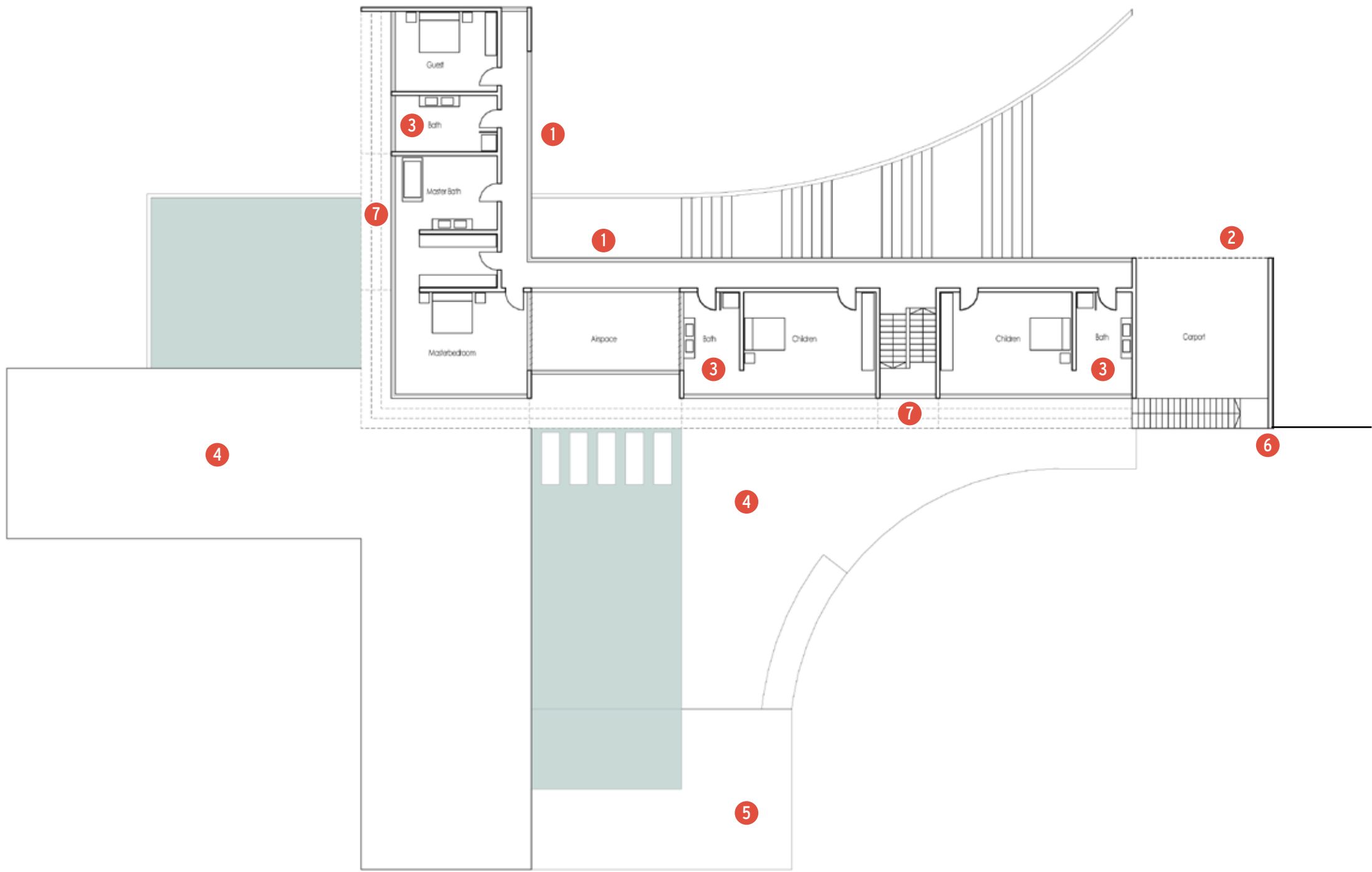
4 RESYSTA DKG 12522 

2 RESYSTA FPH 7020
RESYSTA FPH 9015 

5 RESYSTA CP 70
RESYSTA CP 95 

3 RESYSTA 200/7
RESYSTA 200/5 2P 

6 RESYSTA DKG 14038 



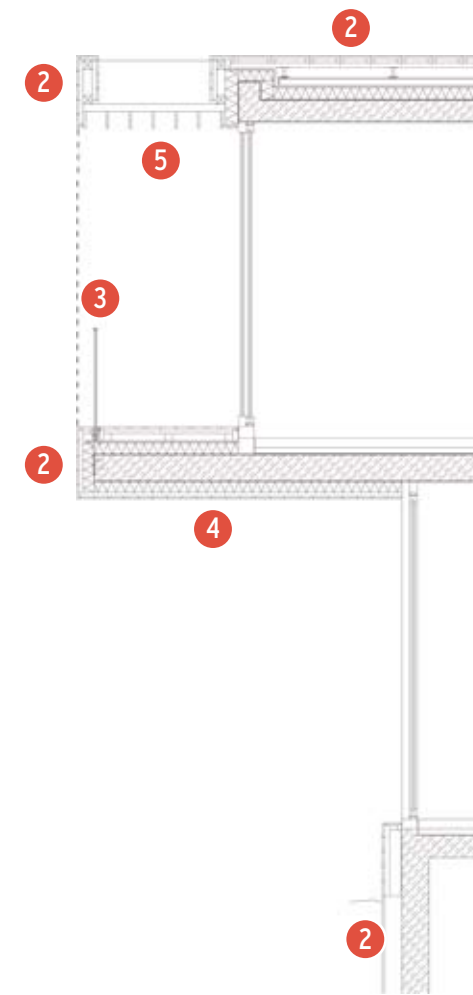
Resysta House – plan of upper floor

The following profiles have been used on the upper floor:

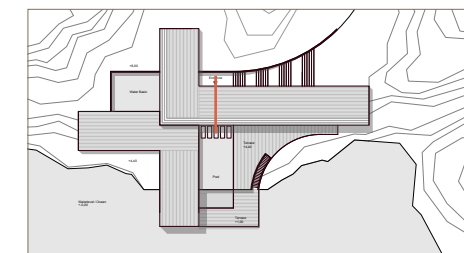
- | | | | |
|----------------------------------------|---------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------|
| 1 RESYSTA WC FP 300x35 |  | 5 RESYSTA DKG 14038 |  |
| 2 RESYSTA FPH 7020 RESYSTA FPH 9015 |  | 6 RESYSTA FPH 7015 |  |
| 3 RESYSTA 200/7 RESYSTA 200/5 2P |  | 7 RESYSTA FPH 14038 |  |
| 4 RESYSTA DKG 12522 |  | | |



Resysta House – cross-section

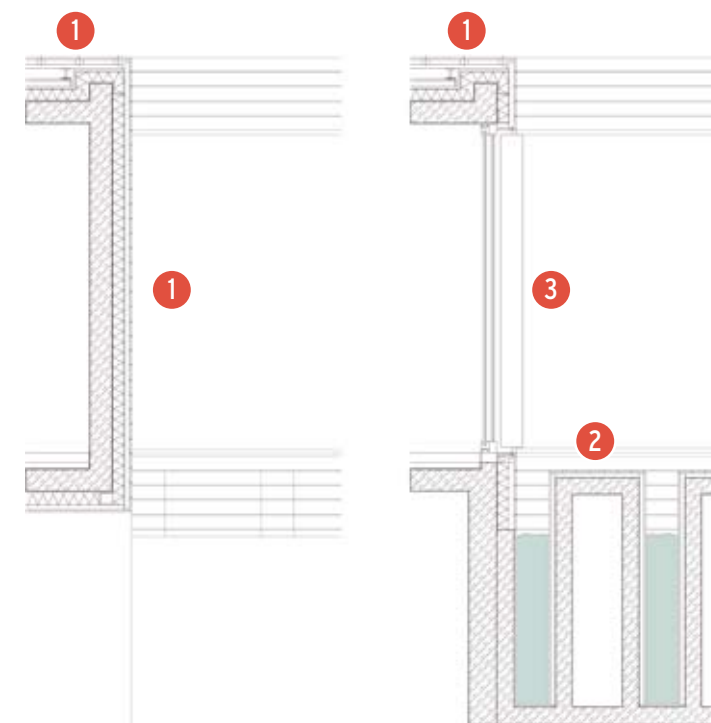


- 1 RESYSTA WC FP 300x35 
- 2 RESYSTA DKG 12522 
- 3 RESYSTA ARO 45 
- 4 RESYSTA CP 95 
- 5 RESYSTA FPH 14038 





Resysta House – cross-section



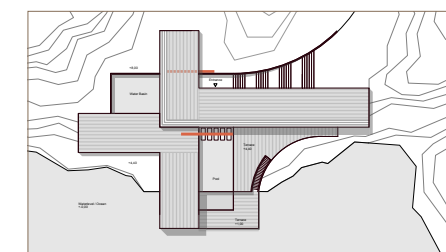
1 RESYSTA DKG 12522



2 RESYSTA FPH 7020
RESYSTA FPH 9015



3 RESYSTA ARO 180





Building as **Never Before** – with **Resysta**.

What will sustainably change future architecture?

Rice husk, common salt and mineral oil. These three basic raw materials are the simple components used in Resysta, our innovative building material which offers a new, creative horizon to designers and architects and is compelling in its unique appearance. Resysta can be applied, where wood could not be used previously due to weather conditions or extremely high maintenance. It can be shaped, is antistatic and absolutely resistant to water, sun as well as fungal decay- even salt water does not have an impact on Resysta. On the following pages let yourself be inspired by the almost unlimited opportunities Resysta offers for indoor and outdoor application.



We love to impress with appearance.

Whether it is façade solutions with bold curves or water immersed terrace elements -Resysta is the ideal material of all building elements exposed to extreme weathering and humidity. Resysta is resistant - neither wind, salt nor water harm the material. It neither splinters or cracks and remains colorfast even under the strong UV effects of the sun. Almost unlimited designs are possible owing to the fact that Resysta can be shaped organically. The material's warm appearance makes you feel comfortable and is an interesting contrast with other materials. Even when processing is concerned, Resysta is easy to work with - it can be sawed, drilled, glazed, sanded and colored. Resysta can be processed in solid form or in layers on alternative materials and is extruded in a wide range of profiles, in order to create as much design scope for you as possible. Let yourself be inspired by our broad range.



Decking system

RESYSTA DKG 12522
(W x H) 125 x 21 mm



RESYSTA DK 5.5/1
(W x H) 140 x 25 mm



RESYSTA FPS 7020
(W x H) 70 x 20 mm



RESYSTA EC 1212
(W x H) 12 x 12 mm



RESYSTA EC 1515
(W x H) 15 x 15 mm



RESYSTA RR 12
Ø 12 mm



RESYSTA RUH 7038
(W x H) 70 x 38 mm



RESYSTA RUS 3825
(W x H) 38 x 25 mm



RESYSTA RUH 3825
(W x H) 38 x 25 mm



Examples of application

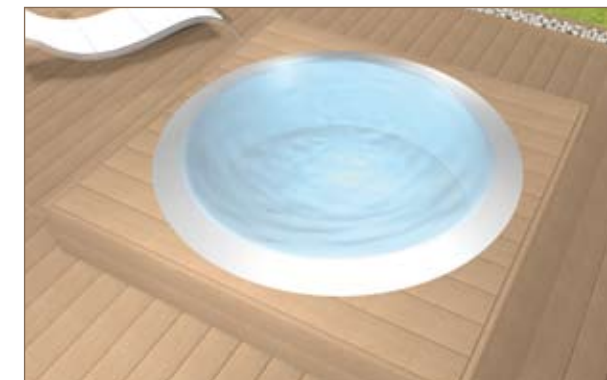
terrace



stairs



whirl pool



substructure on stratified or layered soil



substructure on solid or fortified soil



Please see installation guide at www.resysta.de

Resysta Decking is a simple to install system that in addition to flooring can be used for wall cladding or privacy shields.



Wall cladding

RESYSTA FPH 7020
(W x H) 70 x 20 mm



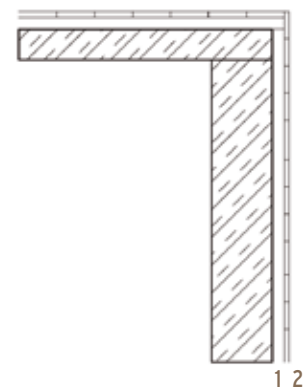
RESYSTA FPH 7015
(W x H) 70 x 15 mm



RESYSTA FPH 9015
(W x H) 90 x 15 mm



Hollow profiles may be universally used for wall claddings, privacy shields or fences. Unlike solid profiles, hollow ones are lighter in weight. In order to span wide supports, it is possible to reinforce hollow profiles. All profiles can be combined

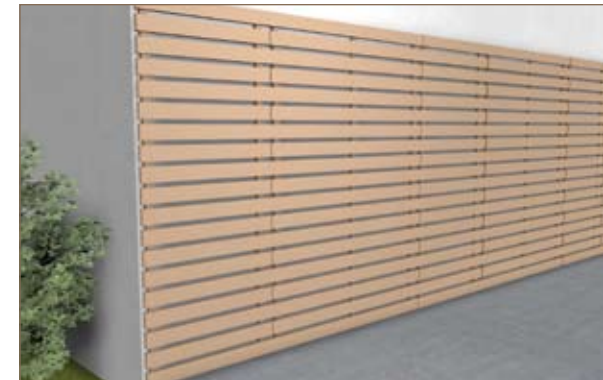


1 Substructure RESYSTA FPS 3825
2 RESYSTA FPH 9015

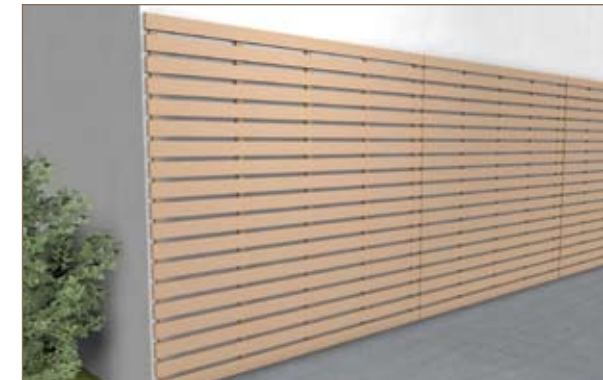
Technical datasheets for all profiles can be downloaded at www.resysta.de.

Installation examples

layout example with offset



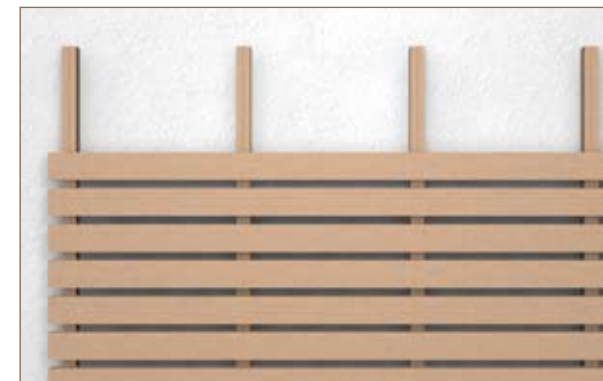
layout example without offset



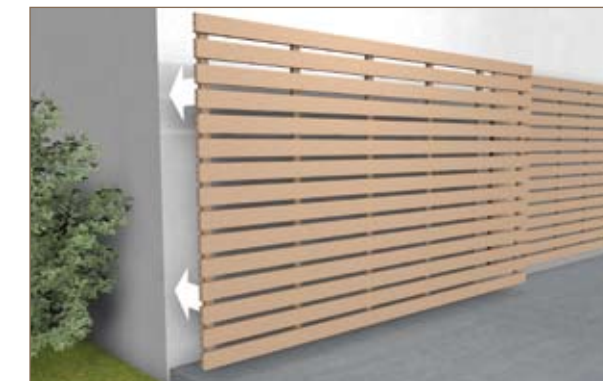
ventilation of façade



front view of installation



installation of a pre-assembled wall



example of different expansion joints





Wall cladding system

RESYSTA WC FP 300/35
(W x H) 300 x 35 mm



RESYSTA WC FP 300/35
Rückansicht



RESYSTA WC RE 300
(W x H) 300 x 35 mm



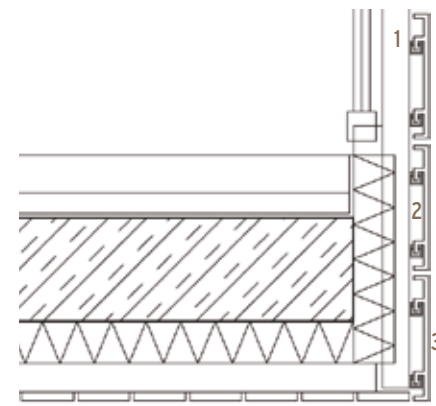
RESYSTA WC LE 300
(W x H) 300 x 35 mm



RESYSTA WC CR 300
(W x H) 300 x 35 mm



RESYSTA WC ALB
(W x H) 30 x 25 mm



- 1 substructure
- 2 RESYSTA WC ALB Aluminium U-Profile
- 3 RESYSTA WC FP 300/35

Installation

installing substructure



mounting of elements

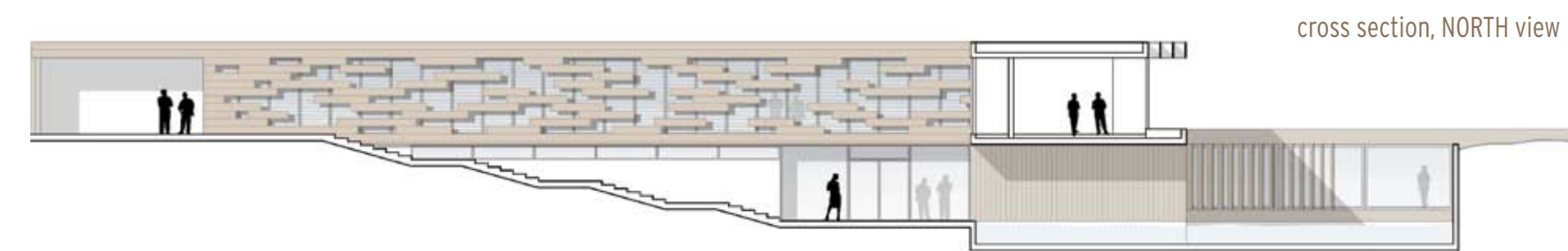


fully assembled wall



Resysta Wall Cladding has been especially developed for indoor and outdoor wall claddings.

Resysta standard profiles can be used as joists and end parts.





Cladding general

RESYSTA FP 200/2,5
(W x H) 200 x 2,5 mm



RESYSTA FP 200/4
(W x H) 200 x 4 mm



RESYSTA FP 200/5
(W x H) 200 x 5 mm



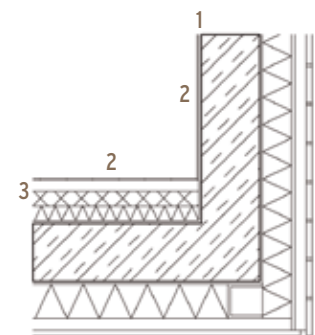
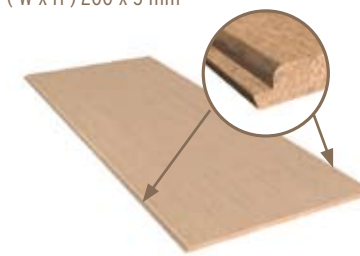
RESYSTA FP 200/7
(W x H) 200 x 7 mm



RESYSTA FP 200/12
(W x H) 200 x 12 mm



RESYSTA FP 200/5 2P
(W x H) 200 x 5 mm



- 1 levelling course
- 2 RESYSTA FP 200/5
- 3 screeds

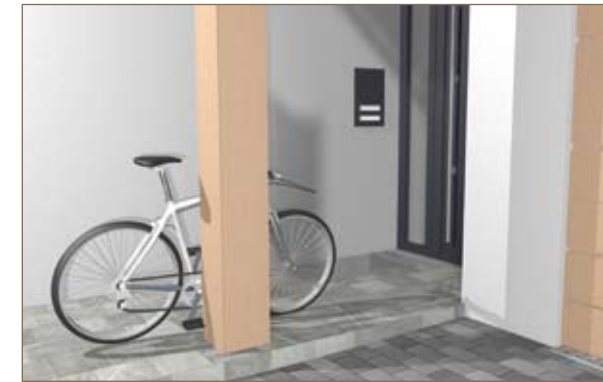
wall - glued with Resysta Turbo Tack
decking - glued with Resysta Floor Bond

Examples of application

wall cladding



column cladding



garage door



Larger surfaces can be cladded easily and quickly with our area profiles.

cross section, SOUTH view



Cladding general

wall



ceiling



GENERAL INFORMATION ON THE APPLICATION OF AREA PROFILES:

- ensure sufficient strength and loading capacity of the subsurface
- we recommend using a bonding agent for both the Resysta profile and the subsurface for better adhesion
- for walls and ceilings we recommend additional mechanical fastening
- always consider thermal expansion of Resysta (higher in direct sun or dark surfaces)
- consider the high diffusion resistance of Resysta



For bonding we recommend using our special products, Resysta Turbo Tack and Resysta Floor Bond.

Special adhesive application of area profiles on panelling

wall cladding



wall cladding



balcony cladding



lift cladding



Resysta cladding can be bonded to panelling and subsequently attached to the façade. Quick and simple cladding of larger areas is thus possible.

GENERAL INFORMATION:

- ensure sufficient ventilation
- ensure sufficient traction



Wall and ceiling

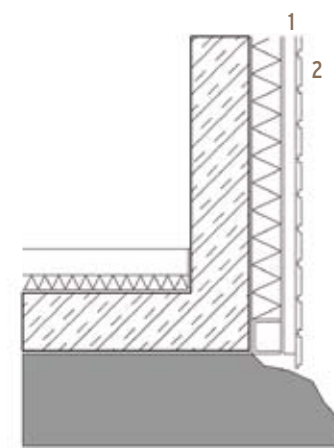
RESYSTA CP 70
(W x H) 95 x 10 mm



RESYSTA CP 95
(W x H) 120 x 10 mm



Wall and ceiling profiles are especially suitable for the quick and simple installation of a full area cover.



1 Substructure RESYSTA RUH 7038
2 RESYSTA CP 95

Application of wall and ceiling profiles

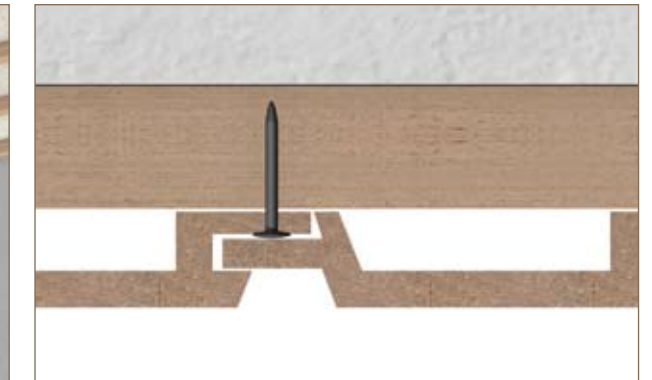
wall cladding



ceiling cladding



fastening



Information on the application of wall and ceiling profiles:

- thermal expansion of Resysta must always be considered
- ensure safe and sufficient fastening
- consider the high diffusion resistance of Resysta
- if necessary, ensure sufficient ventilation
- for substructures, we recommend Resysta Joists

Of course, the wall and ceiling profiles are also perfectly suitable for interior installations.



Sun and Privacy Shields

RESYSTA ARO 180
(W x H) 180 x 44 mm



RESYSTA ARO 180 ABSCHLUSS
(W x H) 180 x 44



RESYSTA ARO 45
(W x H) 45 x 20 mm



RESYSTA FPS 3825
(W x H) 38 x 25 mm



RESYSTA FPH 14038
(W x H) 140 x 38 mm



RESYSTA FPH 7038
(W x H) 70 x 38mm



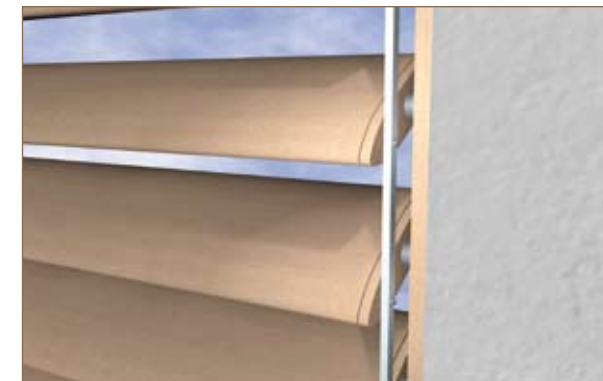
1 supporting substructure
2 mounting structure
3 Resysta FPH 14038

Examples of application

sun shield with ARO 180



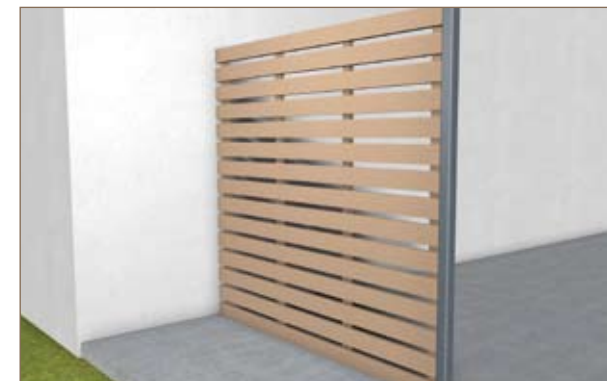
flexible sun/privacy shield with ARO 180



sun shield slats



privacy shield



sun shield



sun shield



Basically, it is possible to design sun and privacy shields from every Resysta profile. In the following, you find samples with a few selected profiles.

The profiles shown can, of course, also be used for other applications.



Footbridges, harbours and bridges

RESYSTA DKG 14038
(W x H) 140 x 38 mm



Resysta Decking Profiles can be individually installed in the maritime field. Wherever extreme mechanical strain requires increased stability, the profiles can be reinforced with hollow aluminium inserts or tubing.

Examples of application

footbridge



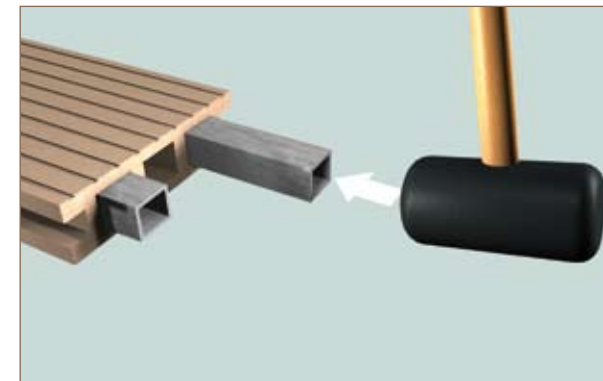
footbridge



footbridge



reinforcement - increases stability





Fences, balconies and cladding

RESYSTA FPH 7020
(W x H) 70 x 20 mm



RESYSTA FPH 7015
(W x H) 70 x 15 mm



RESYSTA FPH 9015
(W x H) 90 x 15 mm



RESYSTA ARO 45
(W x H) 45 x 20 mm



RESYSTA RR 50
Ø 50 mm



RESYSTA FPS 4510
(W x H) 45 x 10 mm



Resysta offers a wide variety of profiles suitable for the construction of fences, balcony or other claddings on the exterior.

Examples of application

fence



balcony



cladding



cladding





Handrail

RESYSTA ARO 45
(W x H) 45 x 20 mm



RESYSTA RR 50
Ø 50 mm



RESYSTA FPS 4510
(W x H) 45 x 10 mm



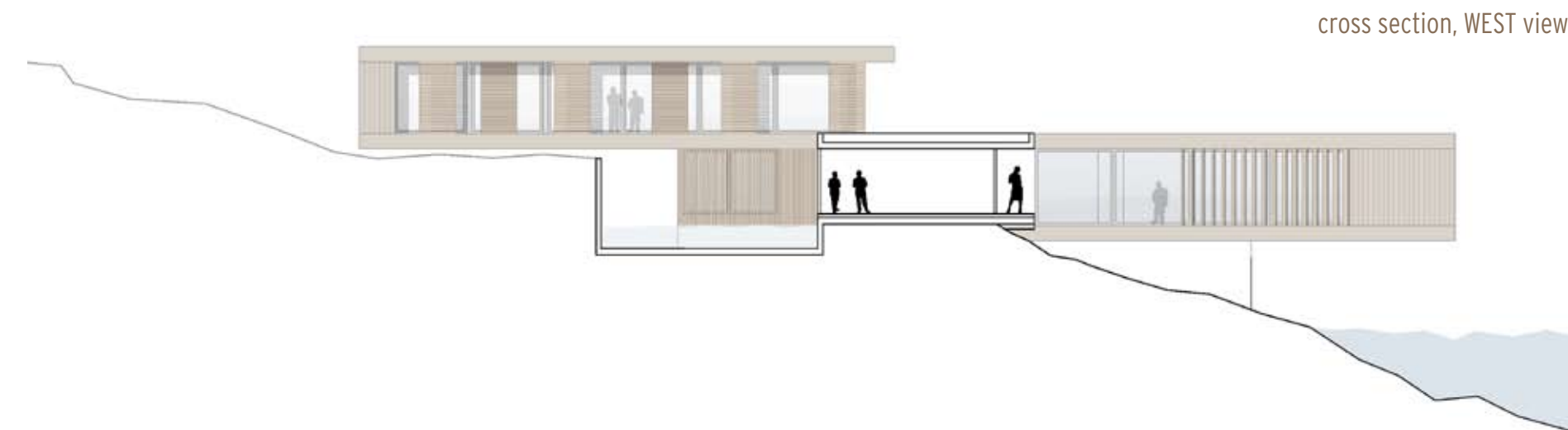
Resysta also offers a variety of profiles for the design of handrails. Moreover, customised profiles can be commissioned with Resysta.

Examples of application

handrail

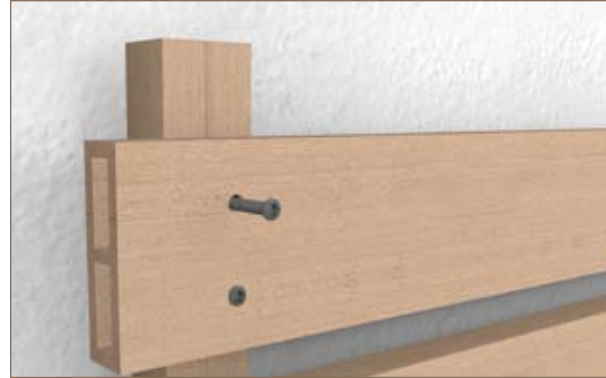


handrail



Installation

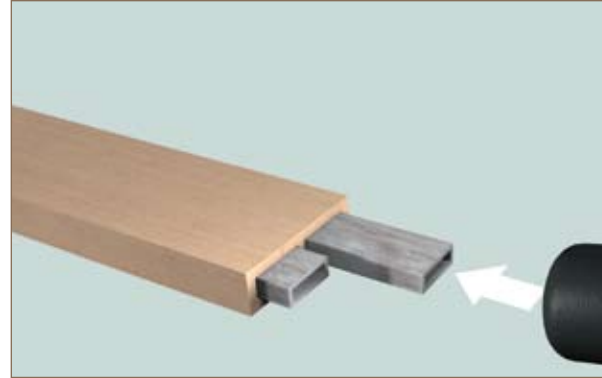
screws, visible from front



hidden screws (if cladding is pre-assembled)



reinforcement - if necessary (increases stability)



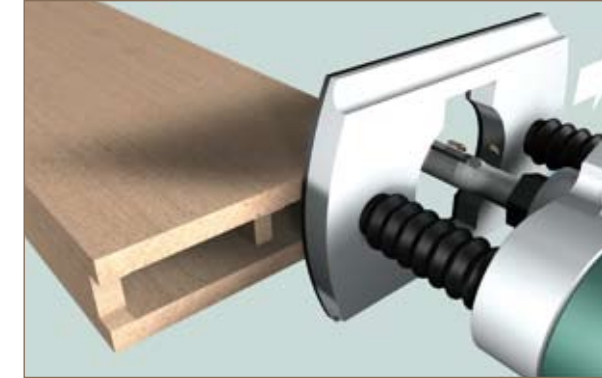
GENERAL INFORMATION:

- thermal expansion of Resysta (expansion joint necessary) must be considered during installation
- always ensure sufficient ventilation
- consider maximum installation distances (depending on profile)
- if necessary, hollow profiles can be reinforced
- general building codes must always be observed

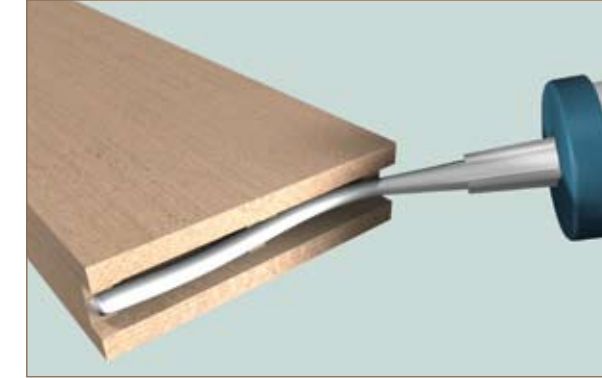
All profiles can be combined with each other. For substructures we recommend RESYSTA FPS 3825.

Closing end parts

milling



bonding



fixing end plate

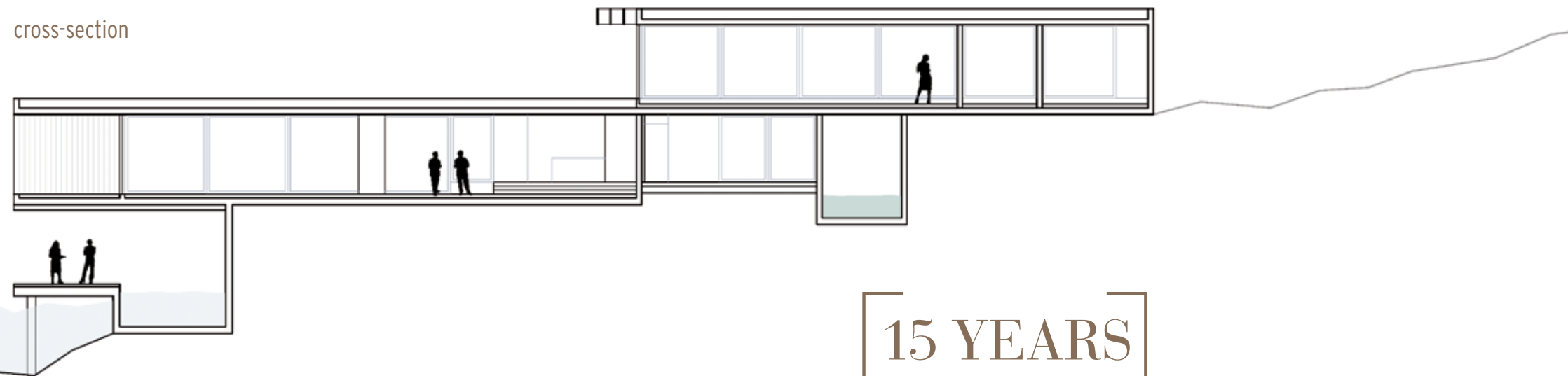


Unlike solid profiles, hollow ones are lighter in weight.

With the fixed end plate, Resysta offers an ideal solution.

It is firmly integrated, giving the profile a solid appearance.

cross-section



**15 YEARS
GUARANTEE**

- swell-free
- crack-free
- splinter-free
- rot - free

Resysta®
THE BETTER WOOD

General information on the outdoor installation of Resysta.

- A** Consider the linear thermal expansion of Resysta. Depending on temperature, Resysta can expand several mm per linear meter; this needs to be considered particularly for joins or connections to other buildings. Expansion is mainly influenced by sun and the resultant heating of the material. Darker colors lead to stronger heating than lighter ones.
- B** Owing to the thermal expansion, Resysta should be installed at constant material temperatures as far as possible.
- C** Resysta has a high steam-diffusion-resistance; therefore sufficient ventilation needs to be ensured, depending on installation conditions.
- D** Choose suitable fastening materials for outdoor use.
- E** Avoid water logging. When using hollow profiles, it is recommended to close ends.
- F** During installation, ensure sufficient traction or fastening.

For bonding we recommend the use of our special products, Resysta Turbo Tack and Resysta Floor Bond.

Resysta is not suitable for structural support. The material has no general technical building approval.

Basically, the installation of Resysta should only be performed by trained staff.



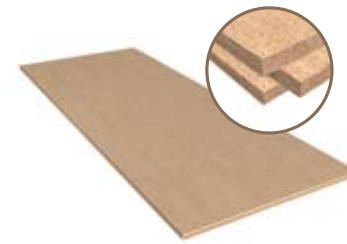
Change wet areas into a wellness oasis.

Regardless of cladding around a pool or decking in a bathroom -Resysta is indifferent to wet and humid conditions. Resysta is the right choice for everyone looking for a material for interior application which spreads warmth, without foregoing the highly desirable tropical wood look. The possibilities of application are almost unlimited, owing to its 100% water resistance. Gracious wall claddings and decking change wet areas into luxurious oases. In terms of safety, Resysta decking offers the best skid resistance. The material requires minimum maintenance - even heavily used surfaces like wash basins or bath coverings do not swell in contact with humidity.



Decking

RESYSTA FP 200/7 4TC
(W x H) 200 x 7 mm



Indoors, our decking profiles can be easily bonded, even for larger areas, on existing sub floors.

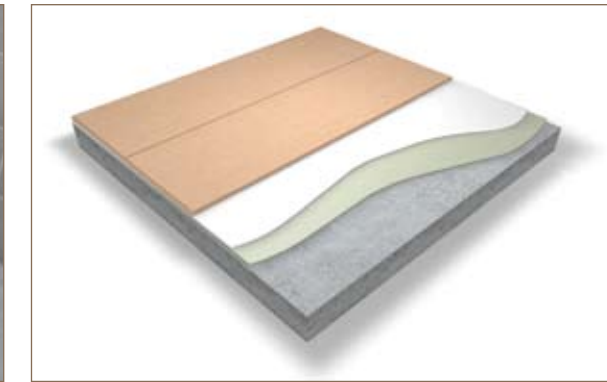
The pre-assembled plug connection allows for a quick and simple installation.

Processing

Bathroom floor



structure of adhesion



General information on using the floor profile:

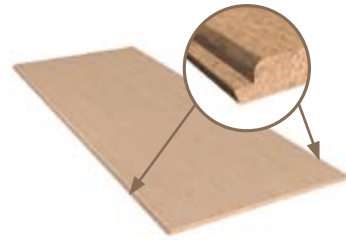
- for decking profiles we recommend the one with the T and C connector
- always consider thermal expansion
- ensure safe and sufficient application of glue
- for both surfaces, we recommend the use of a primer on both surfaces in order to increase adhesion
- in case of uneven subsurface a levelling layer should

For bonding the material we recommend using our special product Resysta Floor Bond.

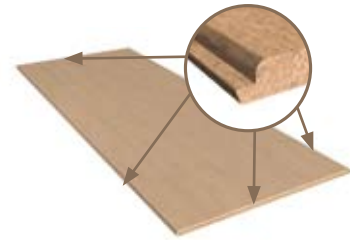


Wall and ceiling

RESYSTA FP 200/5 2 P
(W x H) 200 x 5 mm



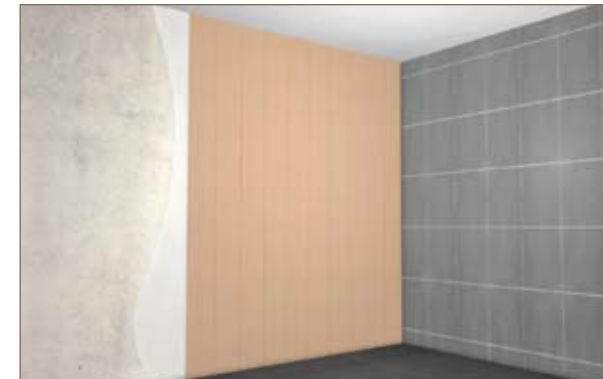
RESYSTA FP 200/5 4 P
(W x H) 200 x 5 mm



Resysta profiles can also be installed without any problems in wall and ceiling areas.

Processing

bathroom wall



bathroom ceiling



bathroom ceiling



General information for use as wall and ceiling profile:

- for walls, we recommend the 2-sided profiled version; for ceilings the 4-sided one
- always consider thermal expansion for both types of profile
- ensure safe and sufficient application of glue
- for both surfaces, we recommend using a primer in order to increase adhesion
- furthermore, we recommend a quick drying glue
- consider the high diffusion resistance of Resysta
- if necessary, also fasten profiles mechanically (especially recommended for ceilings)



For bonding the material we recommend using our special product Resysta Turbo Tack.



Cladding General

RESYSTA FP 200/2,5
(W x H) 200 x 2,5 mm



RESYSTA FP 200/4
(W x H) 200 x 4 mm



RESYSTA FP 200/5
(W x H) 200 x 5 mm



RESYSTA FP 200/7
(W x H) 200 x 7 mm



RESYSTA FP 200/12
(W x H) 200 x 12 mm



Resysta area profiles are perfectly suitable for the veneering of furniture and wet area surfaces with the luxurious look of tropical wood, combined with 100% water resistance.

Areas of application

wash basin



bath surround



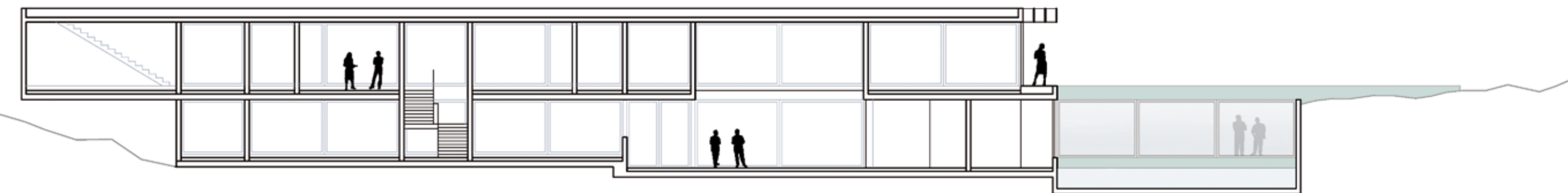
General information for the use of general area profiles:

- always consider thermal expansion
- ensure sufficient traction
- ensure safe and sufficient application of glue
- for both surfaces, we recommend using a primer in order to increase adhesion
- furthermore, we recommend a quick drying glue
- for ceilings or other risk areas , additional mechanical fastenings are necessary
- consider the high diffusion resistance of Resysta



For bonding the material we recommend using our special product Resysta Turbo Tack.

longitudinal section



15 YEARS
GUARANTEE

- swell-free
- crack-free
- splinter-free
- rot - free

Resysta®
THE BETTER WOOD

General information on using Resysta for interiors.

- A** Consider the linear thermal expansion of Resysta which depends, unlike wood, not on the relative air humidity but on the temperature. Especially in the case of joints or connections to other structures, this is very important. It is recommended to install Resysta under consistent conditions and at the normal temperature found in the applicable area, in order to keep expansion to a minimum.
- B** Resysta has a high steam-diffusion-resistance; therefore sufficient ventilation needs to be ensured, depending on the installation conditions.
- C** Choose suitable fastening materials and glues recommended for Resysta.
- D** Resysta has Fire Rating Class 1 (British Standard). By adding flame retardants, lower flammability can be reached.

For bonding the material we recommend using our special products, Resysta Turbo Tack and Resysta Floor Bond.

For interiors, Resysta is particularly suitable for wet areas and offers a wide variety of design options.

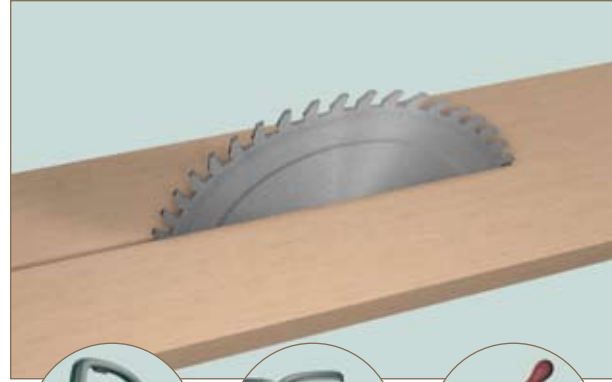
Basically, the installation of Resysta should only be performed by trained staff.



If you like wood, you will like Resysta.

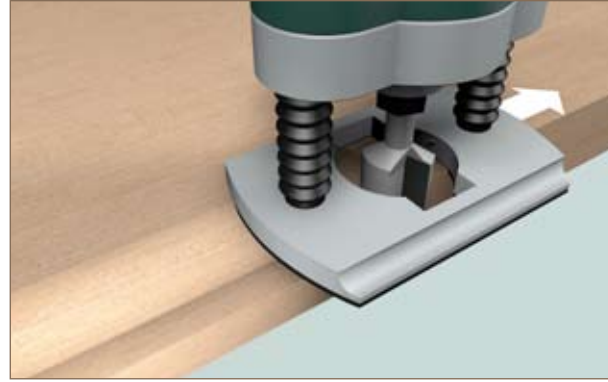
Our passion for wood drove us to develop not just any substitute, but a material that even convinces experts in terms of look, feel and weight. The amazement we regularly experience from carpenters shows us that we did everything right. We consider Resysta, our successful innovation, to be the evolution of wood. Carpenters can process the material like its natural model: sawing, drilling, glazing, sanding or oiling etc. However, there is one crucial advantage: Resysta neither cracks nor splinters. Our future challenge is to realise exciting ideas with Resysta.

sawing



Resysta can be cut in longitudinal as well as a transversal direction with all standard saws.

milling



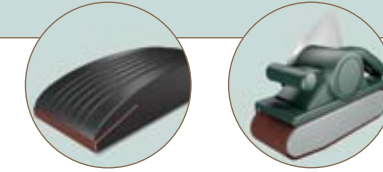
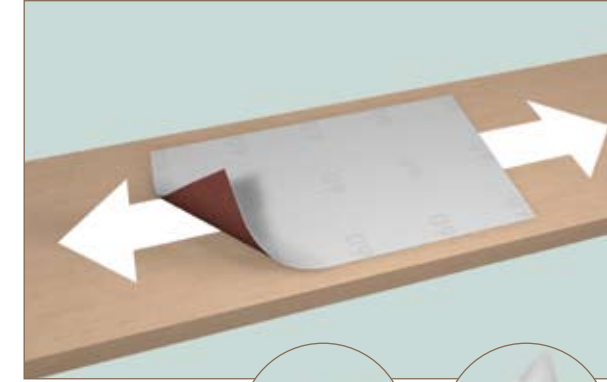
With standard woodworking machines, any profile can be milled.

drilling



Resysta can also be processed with standard wood drilling machines.

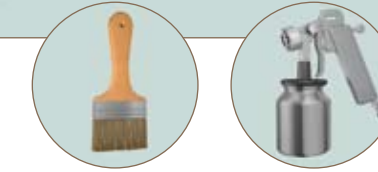
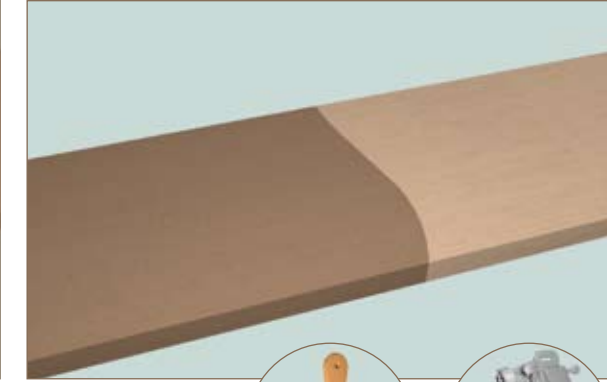
sanding



Like wood, Resysta shall only be sanded in longitudinal direction. Depending on the surface structure desired, we recommend sandpaper with a grain of between 24 to 60. Finer sandpaper shall only be used to remove dirt.

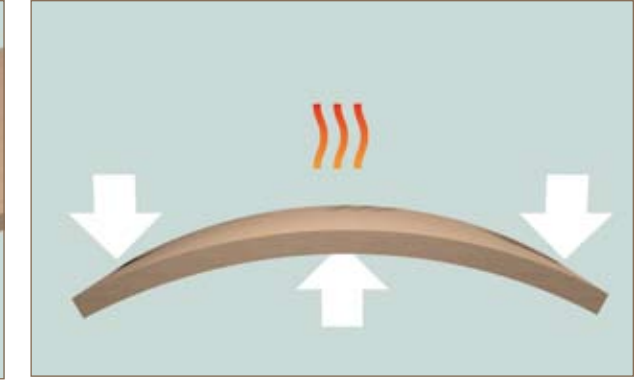
Cutting wastes can be returned any time.

varnishing



Resysta can be painted with Resysta colors. With the Resysta Color Concept, carefully refined for the material, everyone can find their favourite shade.

bending



Owing to Resysta's thermoplastic properties, the material can be heated and formed into organic shapes. This offers completely new design options without affecting the highly-desirable tropical wood look.

» The better wood « can be processed better than wood.

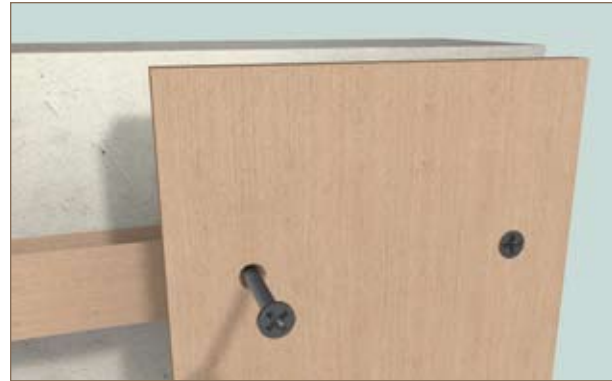


An eternal connection.

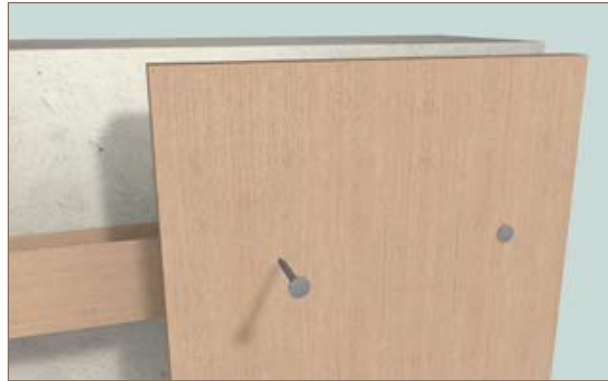
Screws, nails or glue -Resysta can simply be fastened and connected to other materials without any problem. Resysta can be processed and fastened as man has done for generations. However, when choosing the nails and screws, the material's higher density needs to be considered. In order to ensure an optimal result when gluing the material, we recommend glues especially developed for Resysta.

Mechanical connections

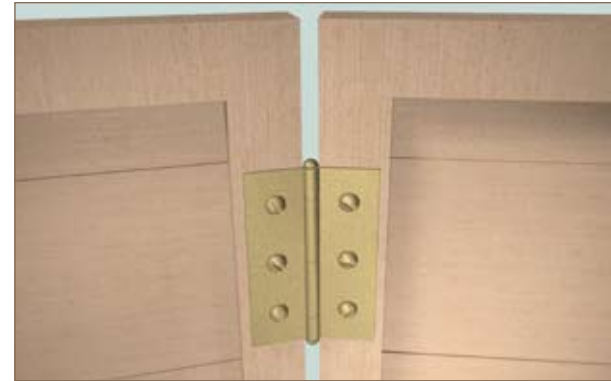
screwing together



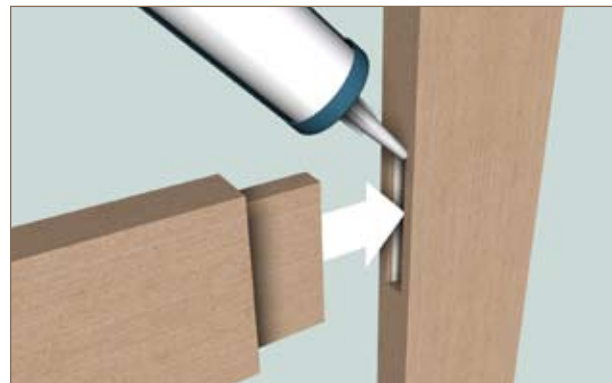
using nails



connection with a hinge



tongue and groove



When installing Resysta, standard screws can be used as with wood. Owing to the material's high density, we recommend pre-drilling, before turning in the screws. In almost the same manner, standard nails can be used. Owing to the material's high density, only nails with a certain minimum thickness should be used. Single Resysta profiles can also be connected using hinges or like with wood, tongue and groove (additional bonding recommended).

Adhesive joints

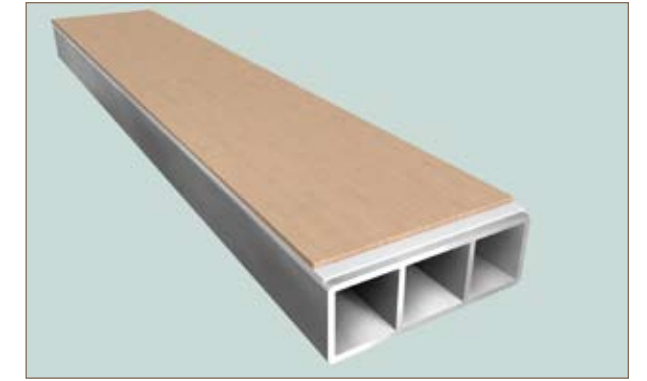
bonding on wall/plaster



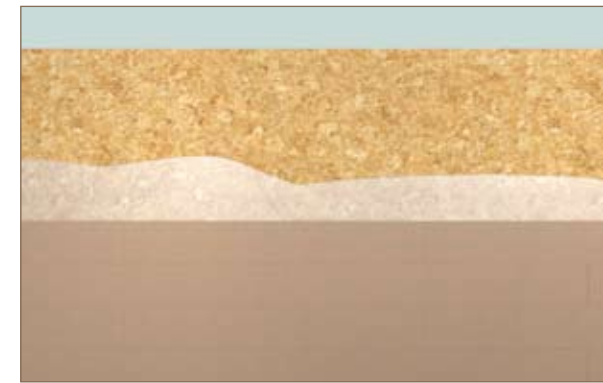
bonding on concrete/cement



bonding on prefabricated aluminium profile



bonding on panel material



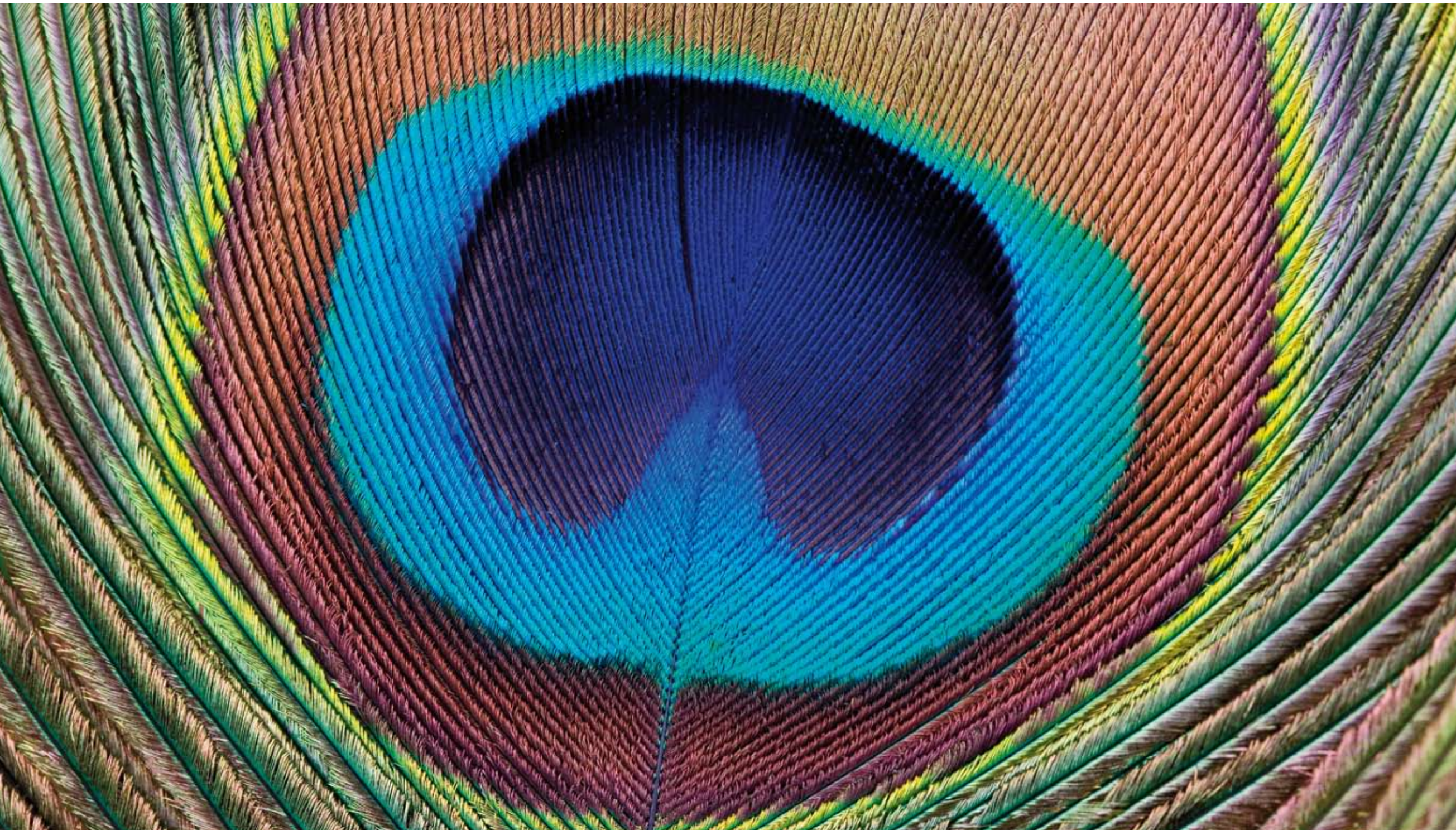
bonding on panel material



Resysta can be bonded onto almost all surfaces. However, the thermal expansion of the Resysta and the respective subsurface needs to be considered. Furthermore, when bonding larger surfaces, sufficient traction needs to be ensured. Before bonding, it is recommended that Resysta be cleaned and treated with a primer to obtain optimal results.

For bonding the material we recommend using our special products, Resysta Turbo Tack and Resysta Floor Bond.

Technical datasheets can be downloaded under www.resysta.de



Naturally beautiful or better with color?

However you prefer Resysta, it's up to you. Upon the beautiful natural shade, each color can be applied -either opaque or as glaze. Also here, Resysta is unique. Since the material does not absorb any water, glazes do not chip off. Even extreme sun has minimal effect on the original shade. If you want to provide added protection to the low-maintenance surface, we recommend using our specially developed 2 Component Glaze. Our color chart contains carefully chosen shades. Do you have special wishes? We make it possible.



Resysta Color Concept

FVG C02



FVG C08



FVG C09



FVG C14



FVG C15



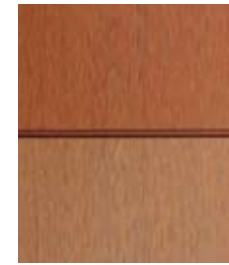
FVG C23



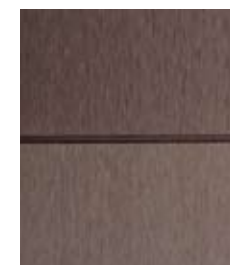
FVG C24



FVG C26



FVG C28



FVG C29



FVG C42



FVG C45



FVG C46



FVG C47



FVG C49



FVG C51



FVG C52



FVG C53



FVG C3001



FVG C3011



FVG C5010



FVG C6002



FVG C9005



FVG C9010



A RAINBOW OF COLORS

Whether it be classic or modern - with the protection glaze especially adapted to the Resysta surface, you can protect Resysta and keep it clean from wear, tear and safeguard it against environmental influences.

With selected color shades you can easily and quickly create the surface finish of your desire and re-treat it whenever you want. The water based formulation is completely odourless and has an ultra-quick drying property. Owing to the simple and smooth application, your surfaces can easily be given a new lease of life.



Our color shades are ready mixed and available in units of 1, 3 and 5 litres. For further tips and information on Resysta surface treatment with glazes or dual component finish, please go to www.resysta.de.

The House of Resysta – individually colored.





Resysta furniture knows the secret of eternal youth!

Beautiful and demanding in look and feel, but less demanding in maintenance - outdoor furniture made of Resysta surpass those made of tropical wood in many ways. Whether it's a wintery mountain terrace or rainy season in the tropics - the fibre-reinforced hybrid material is absolutely water resistant. If no water can penetrate, the material will not splinter, swell, crack or rot. Regular care with oils, as needed with wooden furniture, is a thing of the past. Even extreme sun does not let Resysta fade or grey. Furthermore, pests and fungi cannot harm Resysta. And the best thing is: Resysta is especially sustainable, since it mainly consists of a renewable resource: rice husk - a by-product of each rice grain. We are sure, the future is made of Resysta - and not a single tree has to fall for this promising material.



Armchairs and Loungers

ARMCHAIR MANATI



ARMCHAIR MANATI



ARMCHAIR TORTUGA TOBACCO



LOUNGER MANATI



LOUNGER MANATI



ARMCHAIR TORTUGA AMAZON



LOUNGER BOW



LOUNGER BOW



ARMCHAIR MADEIRA WEISS



Tables

TABLE RESYSTA



TABLE RESYSTA



END TABLE RESYSTA



END TABLE RESYSTA



TABLE MAMMUT



TABLE MAMMUT



Outdoor furniture made of Resysta enriches any outdoor area with stylish understatement - and for many years. Minimum care and a maximum of comfort. And the best thing: not a single tree needs to fall for Resysta.

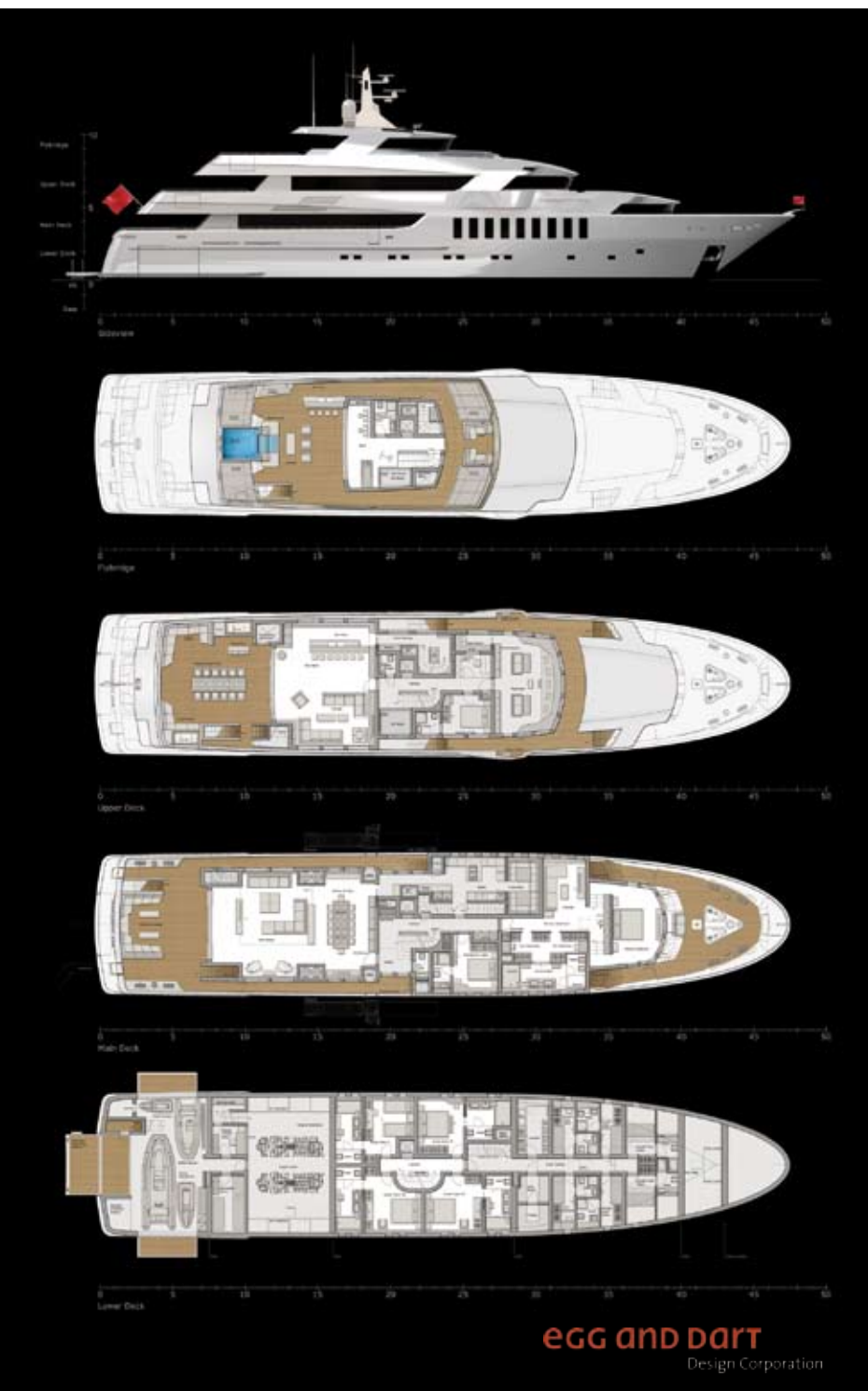


Awash in all waters – Resysta Marine.

Resysta Marine is a modification of the source material Resysta. It has been developed in order to optimise the material's excellent basic characteristics and make it especially suitable for the demanding requirements of yacht building. Aggressive influences of weather and temperature as well as material strength owing to excessive stress, e.g. passenger decks of cruise liners, require maximum material tolerances. When looking for a modern material which meets the highest demands, Resysta Marine is the ultimate answer. This innovative material meets the highest standards. Not only does it withstand UV radiation and salt water, but a decisive advantage over wood is the 100% water resistance compared to wood. Resysta Marine does neither swell, rot, splinter nor crack and is resistant to fungal decay. Furthermore, material contractions are a thing of the past. Another major point is the low maintenance required; Resysta Marine products offer long durability and reliable quality, something of particular importance in the yachting area.

Resysta is bipolar, i.e. water engages with the surface without being absorbed. This guarantees skid resistance and thus maximum safety. However, nowadays a real innovation is the sustainability of a product. Resysta also scores in this field, owing to its 100% recyclability. It consists of more than 60% of renewable resources - rice husks.

Whether it be decks, flooring, gangways, footbridges, platforms or interiors - wherever, the noble look and feel of tropical wood is preferred, Resysta Marine is the future. Experience the high seas with maximum security and complete aesthetics - with Resysta Marine.



Yacht - outdoor application

RESYSTA MARFP 200/2,5
(W x H) 200 x 2,5 mm



RESYSTA MARFP 200/5
(W x H) 200 x 5 mm



RESYSTA MARFP 200/7
(W x H) 200 x 7 mm



RESYSTA MARFP 200/10
(W x H) 200 x 10 mm



RESYSTA MARFP 200/12
(W x H) 200 x 12 mm

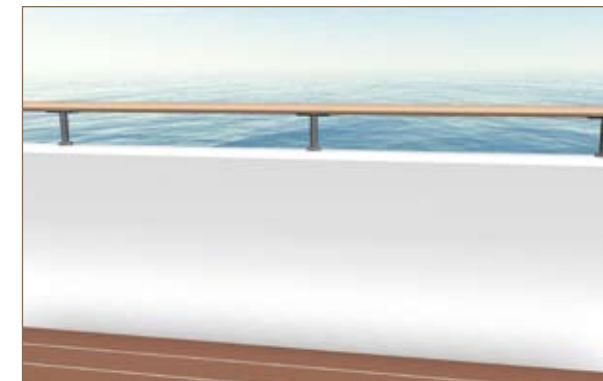


Examples of outdoor application

ship deck



reiling



Special characteristics of Resysta Marine

- increased skid resistance
- very easy processing with yacht building glues and varnishes
- special gross density
- Fire Rating B1
- high resistance to salt water
- extreme UV resistance



Yacht – indoor application

RESYSTA MARFP 200/2,5
(W x H) 200 x 2,5 mm



RESYSTA MARFP 200/5
(W x H) 200 x 5 mm



RESYSTA MARFP 200/7
(W x H) 200 x 7 mm



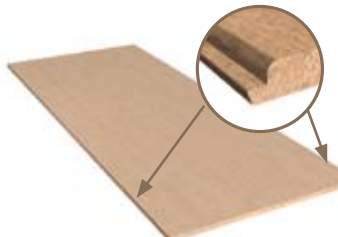
RESYSTA MARFP 200/10
(W x H) 200 x 10 mm



RESYSTA MARFP 200/12
(W x H) 200 x 12 mm



RESYSTA FP 200/5 2P
(W x H) 200 x 5 mm



Resysta Marine is more than just decking. Whether it be gangways, platforms, walkways, decks or handrails - the applications for Resysta are almost unlimited. For the interior, Resysta Marine meets the highest standards and offers solutions from wall to ceiling cladding and furniture with the noble look and feel of tropical wood. As you would expect from high quality yacht interiors, Resysta Marine can also be painted - either in matt or high gloss.

Examples of Indoor Application

decking



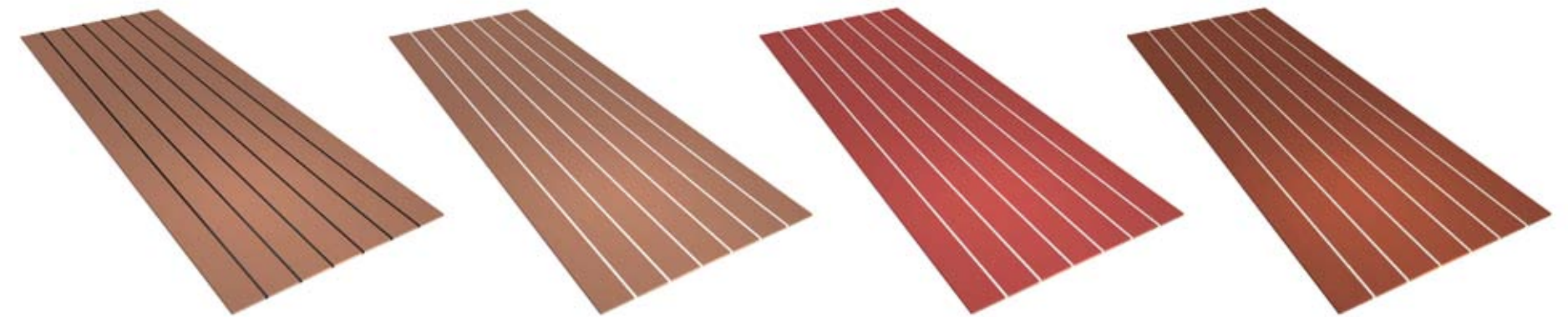
ceiling cladding



furniture construction



Resysta Marine can be colored as desired and is available as panel material.

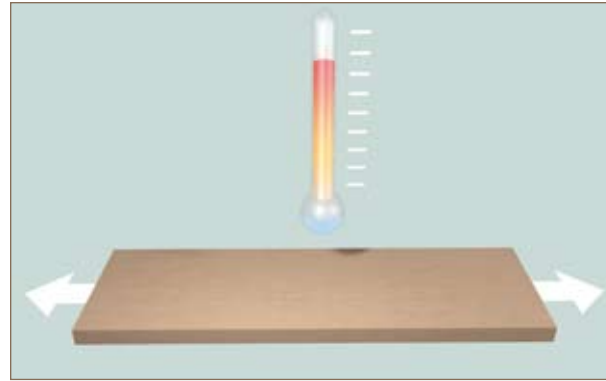




Resysta – clearly distinguishable from wood.

Even if the look and feel needs to be comprehensively experienced by experts - Resysta is different in many ways. Please consider the typical points and advice described in the following, when choice and processes are concerned. You will see! Resysta makes everything possible that you can do with wood- and a lot more. The material's own properties will convince you.

Thermal Expansion



Owing to temperature differences, Resysta expands mainly in a linear direction. Depending on the initial temperature of the material, the ambient temperature and sun exposure, the expansion can be up to several mm per linear meter. This has to be considered especially for joints or when bonding Resysta. If using darker colors, this leads to a stronger heating of the material.

Diffusion Resistance



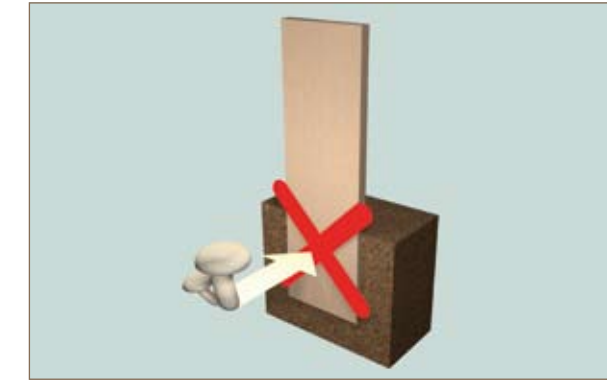
Owing to the material's high diffusion resistance, almost no water can penetrate. This has to be considered especially for the application of wall claddings. Depending on the climatic conditions, adequate ventilation needs to be ensured.

Water Absorption



Resysta absorbs almost no water. Therefore, it is perfectly suitable for extremely wet areas.

Rotting



Resysta is resistant to wood-destructive vermin such as fungi and insects. This ensures high durability and long life.

Flammability



Resysta has Fire Rating Class 1 (British Standard). By adding flame retardants, lower flammability can be reached. For special applications (e.g. in ship building) to what extent rating requirements can be met must be checked on an individual basis.



Material properties

MATERIAL:

Resysta, Homogenous extruded

RAW MATERIALS USED – VINYL POLYMER AND NATURAL FIBRE:

rice husk approx. 60%
 common salt approx. 22%
 mineral oil approx. 18%

PROCESSING:

Processing like wood with standard woodworking machines
 cutting, milling, drilling, sanding, bonding, fastening with screws

Surface Treatment Applying glazes, varnishes and oils with brush,
 paint roller or spraying

Technical data

| | | |
|---------------------------------------------------|-----------------------|--------------------------------------------------------------------------------------------|
| Density | ASTM D2395:2002 | approx.1.46 kg/m ³ |
| Country Thermal Coefficient of Expansion | ASTM D696 | 3.6x10(-5)mC |
| Air Humidity Behaviour | | none or very low moisture absorption and dimensional change |
| Water Absorption Behaviour and Dimensional Change | ASTM D1037:2006a | none or very low water absorption |
| Weathering and UV Resistance | QUV Test | Resysta surfaces treated with glaze show extremely high resistance |
| Skid Resistance | DIN 51097 | C Rating (highest rating) |
| Fire Behaviour (German Standard) | EN ISO 11925-2 | B2, normal flammability (by adding flame retardants, a higher rating of B1 can be reached) |
| Fire Behaviour (US Standard) | NFPA | A Rating (flame propagation 25, smoke emission 450) |
| Fire Behaviour (British Standard) | BS 476 Teil 6&7 | Rating 1 |
| Durability (Resistance to Wood-Destructive Fungi) | DINV ENV 12038:2002 | the material has not been affected, highest durability - Class 1 |
| Emission | DIN EB ISO 9001/14001 | passed |

Worldwide, we conduct tests in accordance with German, British and European Standards with renowned institutes.





Resysta displays a distinct image.

Wall cladding, footbridges, privacy shields or flooring - these are just a few of the countless possibilities of how to use pre-assembled Resysta profiles. Easy to install and similar to wood; thanks to the extrusion process there are no limitations in design. You need a customised profile in order to realise your ideas? Simply let us know and we will all try to shape your ideas.

RESYSTA DKG 12522
(W x H) 125 x 21 mm



APPLICATION:
terrace, decking,
wall cladding,
privacy shield

RESYSTA DKG 14038
(W x H) 140 x 38 mm



APPLICATION:
footbridges, harbours,
bridges, decking

RESYSTA DKG DK 5.5/1
(W x H) 140 x 25 mm



APPLICATION:
Terrasse, Boden,
Wandverkleidung,
Sichtschutz

RESYSTA FPS 7020
(W x H) 70 x 20 mm



APPLICATION:
terrace, decking,
wall cladding,
privacy shield

RESYSTA RUS 3825
(W x H) 38 x 25 mm



APPLICATION:
joist

RESYSTA RUH 3825
(W x H) 38 x 25 mm



APPLICATION:
joist

RESYSTA RUH 7038
(W x H) 70 x 38 mm

RESYSTA EC 1212
(W x H) 12 x 12 mm



APPLICATION:
end plate

RESYSTA EC 1515
(W x H) 15 x 15 mm

RESYSTA RR 12
Ø 12 mm



APPLICATION:
closing drill holes

RESYSTA FPH 7020
(W x H) 70 x 20 mm



APPLICATION:
wall cladding,
privacy shield,
fence, balcony,
cladding

RESYSTA FPH 7015
(W x H) 70 x 15 mm



APPLICATION:
wall cladding,
privacy shield,
fence, balcony,
cladding

RESYSTA FPH 9015
(W x H) 90 x 15 mm



APPLICATION:
wall cladding,
privacy shield,
fence, balcony,
cladding

RESYSTA 200/2,5
(W x H) 200 x 2,5 mm



APPLICATION:
full-area covering,
coating

RESYSTA 200/4
(W x H) 200 x 4 mm



APPLICATION:
full-area covering,
coating

RESYSTA 200/5
(W x H) 200 x 5 mm

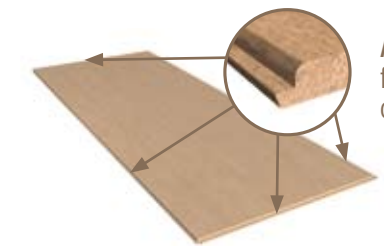
RESYSTA 200/7
(W x H) 200 x 7 mm



APPLICATION:
full-area covering,
wall, garage door

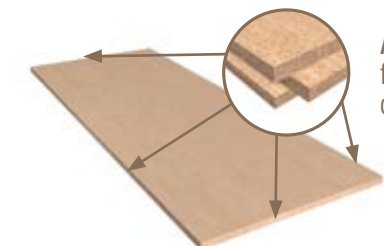
RESYSTA 200/5 2P
(W x H) 200 x 5 mm

RESYSTA 200/5 4P
(W x H) 200 x 5 mm



APPLICATION:
full-area covering,
ceiling

RESYSTA 200/7 4TC
(W x H) 200 x 7 mm



APPLICATION:
full-area covering,
decking

RESYSTA WC FP 300x35
FRONT SIDE (W x H) 300 x 35 mm



APPLICATION:
wall cladding system

RESYSTA WC FP 300x35
BACK SIDE (W x H) 300 x 35 mm



APPLICATION:
wall cladding system

RESYSTA WC RE 300
END PART RIGHT
(W x H) 300 x 35 mm



APPLICATION:
wall cladding system

RESYSTA WC LE 300
END PART LEFT
(W x H) 300 x 35 mm



APPLICATION:
wall cladding system

RESYSTA WC CR 300x35
CORNER (W x H) 300 x 35 mm



APPLICATION:
wall cladding system

RESYSTA WC ALB
ALUMINIUM SLAT
(W x H) 30 x 25 mm



APPLICATION:
wall cladding system

RESYSTA CP 70
(W x H) 95 x 10 mm



APPLICATION:
wall, ceiling

RESYSTA CP 95
(W x H) 120 x 10 mm



APPLICATION:
wall, ceiling

RESYSTA ARO 180
(W x H) 180 x 44 mm



APPLICATION:
sun/privacy shield

RESYSTA ARO 180
ABSCHLUSS
(W x H) 180 x 44 mm



APPLICATION:
sun/privacy shield

RESYSTA FPH 7038
(W x H) 70 x 38 mm



APPLICATION:
sun/privacy shield,
general construction

RESYSTA FPS 3825
(W x H) 38 x 25 mm



APPLICATION:
sun/privacy shield,
general construction

RESYSTA FPH 14038
(W x H) 140 x 38 mm



APPLICATION:
sun/privacy shield,
general construction

RESYSTA FPHR 7020
(W x H) 85 x 20 mm



APPLICATION:
wall cladding

RESYSTA FPHR 9020
(W x H) 105 x 20 mm



APPLICATION:
wall cladding

RESYSTA FPSC 2515
(W x H) 25 x 15 mm



APPLICATION:
general construction

RESYSTA ARO 45
(W x H) 45 x 20 mm



APPLICATION:
privacy shield,
handrail, fence,
miscellaneous

RESYSTA RR 50
Ø 50 mm



APPLICATION:
privacy shield,
handrail, fence,
miscellaneous

RESYSTA DK 7016
(W x H) 70 x 16 mm



APPLICATION:
privacy shield,
handrail, fence,
miscellaneous

RESYSTA FPR 7222
(W x H) 100 x 22 mm



APPLICATION:
privacy shield,
handrail, fence,
cladding,
miscellaneous

RESYSTA ANP 5050
(W x H) 50 x 50 mm



APPLICATION:
corner closing
element

RESYSTA ANP 6060
(W x H) 60 x 60 mm



APPLICATION:
corner closing element

RESYSTA FPS 5528
(W x H) 55 x 28 mm



APPLICATION:
general
construction

RESYSTA FPH 5528
(W x H) 55 x 28 mm



APPLICATION:
general
construction

RESYSTA FPS 4508
(W x H) 45 x 8 mm



APPLICATION:
general
construction

RESYSTA FPS 4510
(W x H) 45 x 10 mm

RESYSTA FPS 7012
(W x H) 70 x 12 mm

RESYSTA RR6
Ø 6 mm



APPLICATION:
closing of
constructions

RESYSTA FP 2/4
(W x H) 100 x 40 mm



APPLICATION:
poles, frames

RESYSTA DKN 12520
(W x H) 125 x 20 mm



APPLICATION:
decking, wall

RESYSTA FPS 2512
(W x H) 25 x 12 mm



APPLICATION:
general
construction

RESYSTA FPS 2616
(W x H) 26 x 16 mm



APPLICATION:
general
construction



Resysta Colors

- 1 litre FVG C02, FVG C08, FVG C09, FVG C14, FVG C15, FVG C23
- 3 litre FVG C24, FVG C26, FVG C28, FVG C29, FVG C42, FVG C45
- 5 litre FVG C46, FVG C47, FVG C49, FVG C51, FVG C52, FVG C53
- FVG C3001, FVG C3011, FVG C5010, FVG C6002, FVG C9005,
- FVG C9010

Resysta 2 Component Varnish

- 0,75 litre RFS 10
- 2 litre



Resysta Glues

- Resysta Turbo Tack High strength elastic adhesive for bonding Resysta on wall and ceiling.
- Resysta Floor Bond High strength elastic adhesive for bonding Resysta Decking.
- Resysta Uni Seal Sealant for grouting Resysta.
- Resysta Power Primer Bonding agent for Resysta Turbo Tack and Resysta Floor Bond.





MAX STRANG ARCHITECTURE

Thanks to Resysta the most beautiful places on Earth become even more attractive.

In the meantime, the revolutionary material Resysta conquers the world and sets completely new angles in architecture. On the following pages you will find examples of realised visions. Let yourself be fascinated by the endless possibilities of this “miraculous” material. We are looking forward to shaping your future ideas.



Private Villa - Weston, Florida



material used: RESYSTA DKG 12522

amount in square meters: 260

color shade: FVG c08

year of construction: 2011

climate: tropical moist



Quellenhof***** - Meran, South Tyrol



material used: RESYSTA DKG12522

amount in square meters: 1200

color shade: FVG C24

year of construction: 2010

climate: alpine



5 Star Hotel, Miami Beach, Florida



material used: RESYSTA DGK12522, RESYSTA FPS7020, RESYSTA RUH7038

amount in square meters: 100

color shade: Resysta untreated with 2K varnish

year of construction: 2010

climate: tropical moist



Nelson Mandela Cottage, Johannesburg



material used: RESYSTADKG12522

amount in square meters: 100

color shade: FVG C08 and Resysta untreated

year of construction: 2011

climate: sunny, dry



Oasis Hotel, Singapore

In the past 10 years...



Hilton, Singapore



Royal Spa, Kitzbühl



ceiling constr. installed 2003 - timeless beauty



Tung Chung Park, Hong Kong



footbridge - more than 1 million feet since 2001



Pick 'n Pay Shopping Centre, Johannesburg

...more than 1000 projects have been realised worldwide.

Clifton Appartments | Cape Town, South Africa

Crowne Plaza Hotel | Singapore, Malaysia

de Zalze Golf Club | Stellenbosch, South Africa

Eco Lodge | Malawi, South Africa

Four Season Hotel | Langkawi, Malaysia

Four Season Hotel | Seychelles, Africa

Grand Copthorne Waterfront Hotel | Singapore, Malaysia

Hardrock Hotel | Penang, Malaysia

Hilton Hotel | Singapore, Malaysia

Hotel Bergland | Sölden, Austria

Hotel Grand Maya | Kuala Lumpur, Malaysia

Hyatt Regency | Waikiki, Hawaii

Kandooma | Maldives

Lake House | Winterhaven/Miami, USA

Lechner Massivhaus | Berlin, Germany

Leopard Creek Golf Resort | Kruger National Park

Mandela cottage | Johannesburg, South Africa

Marriott | Waikiki, Hawaii

Oasis Hotel | Singapore, Malaysia

Pick 'n Pay Shopping Centre | Johannesburg, South Africa

Quellenhof | St. Martin/Meran, Italy

Royal Spa Hotel | Kitzbühel, Austria

Rupert & Rothchild Wine Estate | Stellenbosch, South Africa

Shangri-La Hotel | Manila, Trallis

Shangri-La Hotel | Vancouver, Canada

The Vaal Dame Public Walkway | Johannesburg, South Africa

Tung Chung Park | Hong Kong, China

Resysta is awarded during the course of the annual competition, category "Construction"

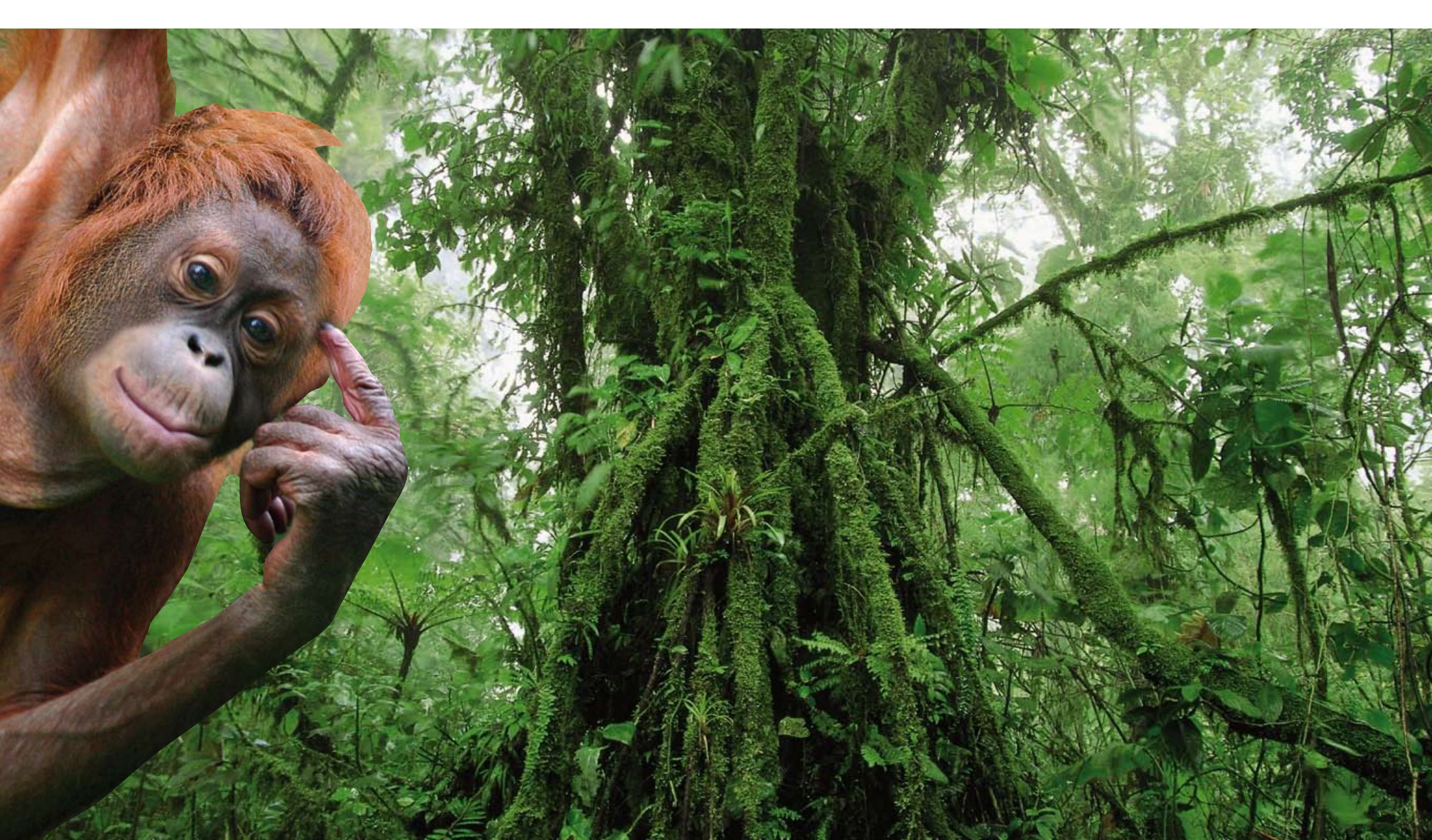
DETAIL
Zeitschrift für Architektur + Baukunst - Review of Architecture - Revue d'Architecture

Resysta is awarded during the course of the Design & Product Award, category "Design Materials"

dwell
ON DESIGN

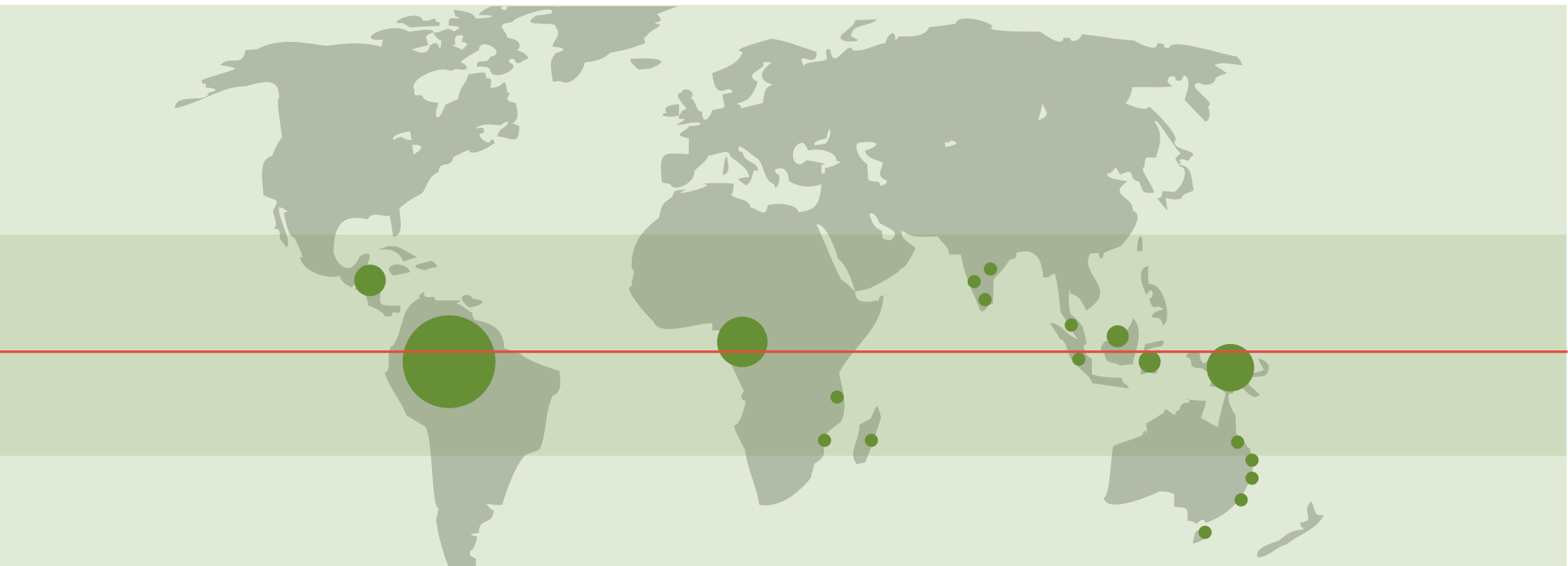
Resysta is awarded during the course of the Innovation Award Architecture and Building, category „Sustainability“

AIT



Our Green Lungs Breathe a Sigh of Relief.

Around the globe, interrupted only by the great oceans, a wide belt of primeval forest covers our earth - the tropical rain forests. They are home to innumerable, partly unknown kinds of plants and animals. Our »green lung« absorbs a huge amount of carbon dioxide and are essential in order to maintain climate. Saving the tropical rain forests is easier said than done, as long as the demand for tropical woods is still increasing. With Resysta, everyone can contribute to the protection of the rain forests, since it is absolutely wood free - not a single tree needs to fall for it.



It is time for Resysta. every minute of every day thousands of square meters of the tropical rain forests are cleared forever.



» We should only consume as much as we can replenish «

Zero Emission Product

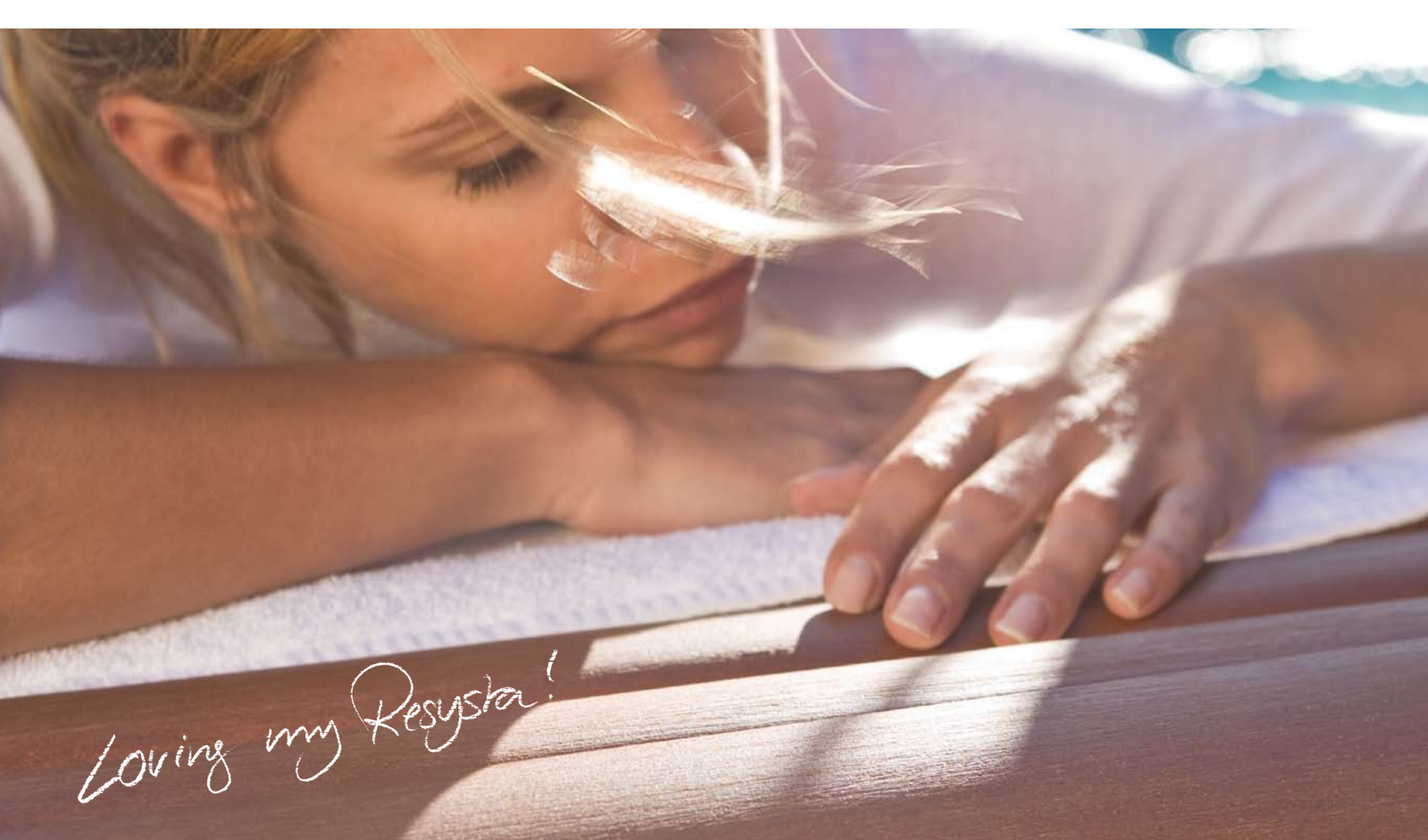
Owing to the bonding of carbon dioxide in the rice husk - the main component of Resysta - the carbon dioxide arising from production and transport is compensated. Resysta's durability actively contributes to a positive eco-balance.

Valuable resource

Resysta makes rice husks a valuable resource. So far, rice husks have only been a by-product of rice production. Rice farms now benefit from selling the husks.

100% recyclable

Resysta actively deals with recycling. Even after many years of use, the material can be returned to us. Resysta can be pulverised and new Resysta products can be continuously reconstituted



Loving my Resysta!

Imprint

Resysta International GmbH
Steinbuchstrasse 3
83539 Forsting
Germany
info@resysta.de
Telefon +49 (0) 8094 / 90 50 33-0
Telefax +49 (0) 8094 / 90 50 33-99
www.resysta.de

Thanks to each and every one of you who is contributing to the company's success. To our employees for their individual commitment. To architects, craftsmen, dealers and partners who plan, tender, process and sell with the same passion as we produce.

Architects Maximilian Braun, Ulrich Schimtenings, Fredrik Werner
Art Direction Nicole Oberberger
Printing Neumann Druck OHG
3D Illustrations Wolfgang Biebach
Renderings Gilberto Bonelli (Scriptogram)
Text Petra Nachtigall, Sabine Krahn
Translation Susanne Löw, Barry Garner

Join us on 

© Resysta International GmbH
Updated September 2011

Liability

This publication has been compiled with the utmost diligence and care. All information contained therein is based on our present state of knowledge and is intended to provide general notes on our products and their uses. Thus, this book does not legally ensure specific properties for the products or their suitability for any specific purpose. This issue does not contain any information on rights.

Deviations to the original colors as far as gloss, shade and structure are concerned, are related to printing techniques. If desired, we can send out original samples. Misprints, typographic errors and omissions excepted; subject to delivery capacities. Prices upon demand.

Reprints, reproduction, storage in an automated database as well as publication of any kind require the written agreement of Resysta International GmbH. ©Resysta is a registered trademark of Resysta International GmbH.

Please take note of our General Terms and Conditions which are available in the internet under www.resysta.de. Should you have any further questions, please do not hesitate to contact us on info@resysta.de.

» The Future is
made of Resysta «

100% no wood • 100% no WPC • 100% waterproof

