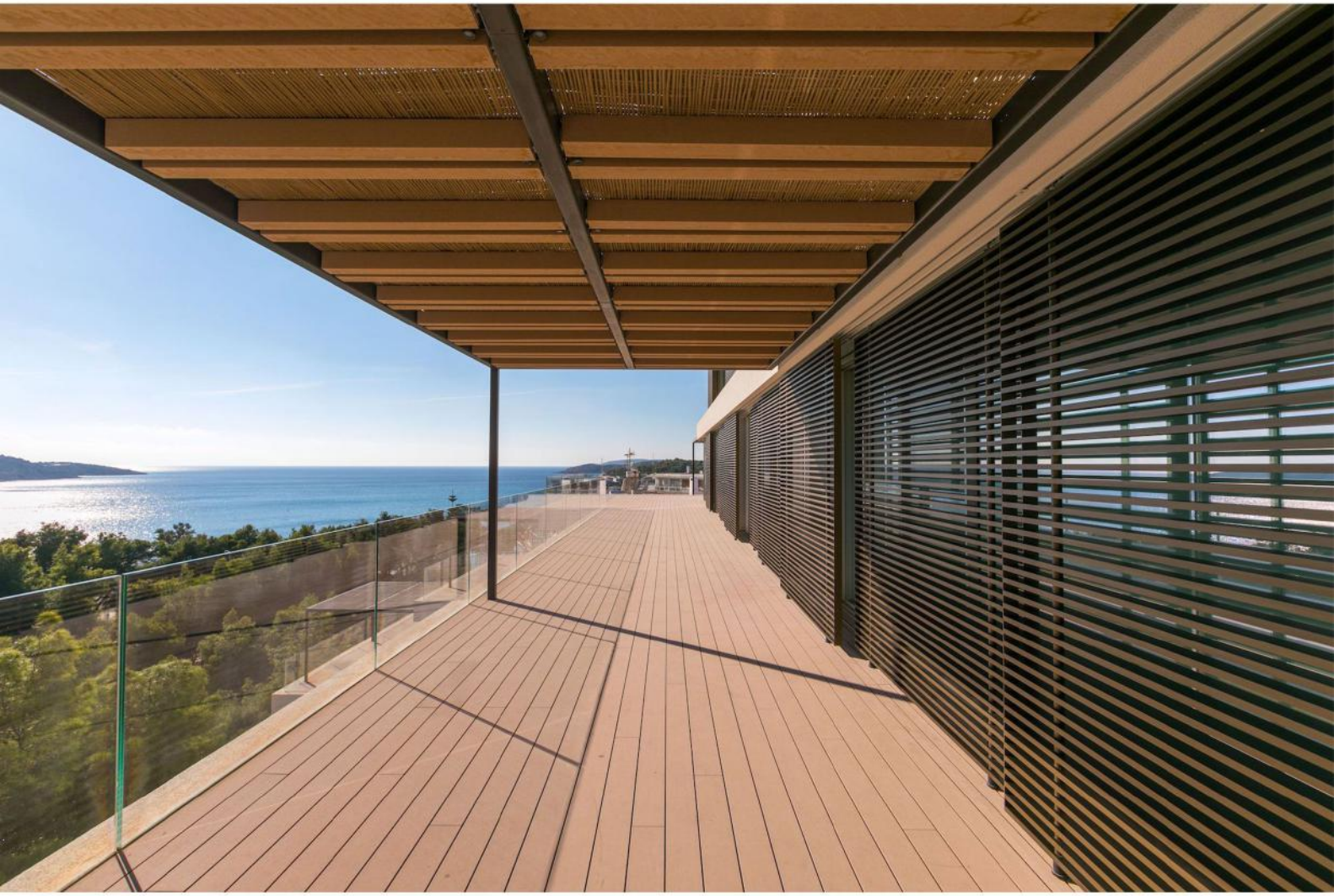
RESYSTA HYBRID

2022 Catalogue

assiouras bros

advanced wood technology

RESYSTA HYBRID



Decking

Fence

Façade

An intelligent solution when demands have to be met that cannot be fulfilled by wood and WPC.

Resysta consists at approx. 60% of a food industry waste product – rice husk. Adding approx. 22% common salt and approx. 18% mineral oil – finished. By a wide variety of different manufacturing processes, products are created that exceed wood or WPC (Wood-Plastic-Composite). Products made of Resysta are weather-proof, water-resistant and UV-resistant and much more. As it is 100% recyclable and has a wide variety of colors it complies with all demands of a modern material.

The profiles look like wood, feel like wood, but aren't wood! Salamander outdoor profiles look just like wood, but the great thing about it is that no trees have to be chopped down. The Resysta® raw material, made from 60% rice husks, is transformed into the profile design using a specially-developed production method. It then undergoes a high-precision sanding process. Maximum quality, service life and sustainable product solutions are thus available for outdoor projects. It is the naturally water-repellent properties of rice husks that make Salamander outdoor profiles particularly resistant to shades and individually applying the specially-developed colour system. the effects of the weather. Just as the husk protects the rice grain against moisture, the rice husk content in Salamander profiles also prevents them from rotting, swelling or dangerous splintering. Salamander outdoor systems are long-lasting with a wide variety of colours: We are highly quality-conscious. Constant monitoring of the manufacturing raw materials combined with our long-standing expertise in this type of production are the factors that determine the top quality and durability of our Salamander profiles. You can also bring colour into play by choosing from over 100 shades and individually applying the specially-developed colour system.

Raw materials used

approx. 60% rice husks + approx. 22% rock salt + approx. 18% mineral oil

Green Product Award
Winner

A better product for a better world!

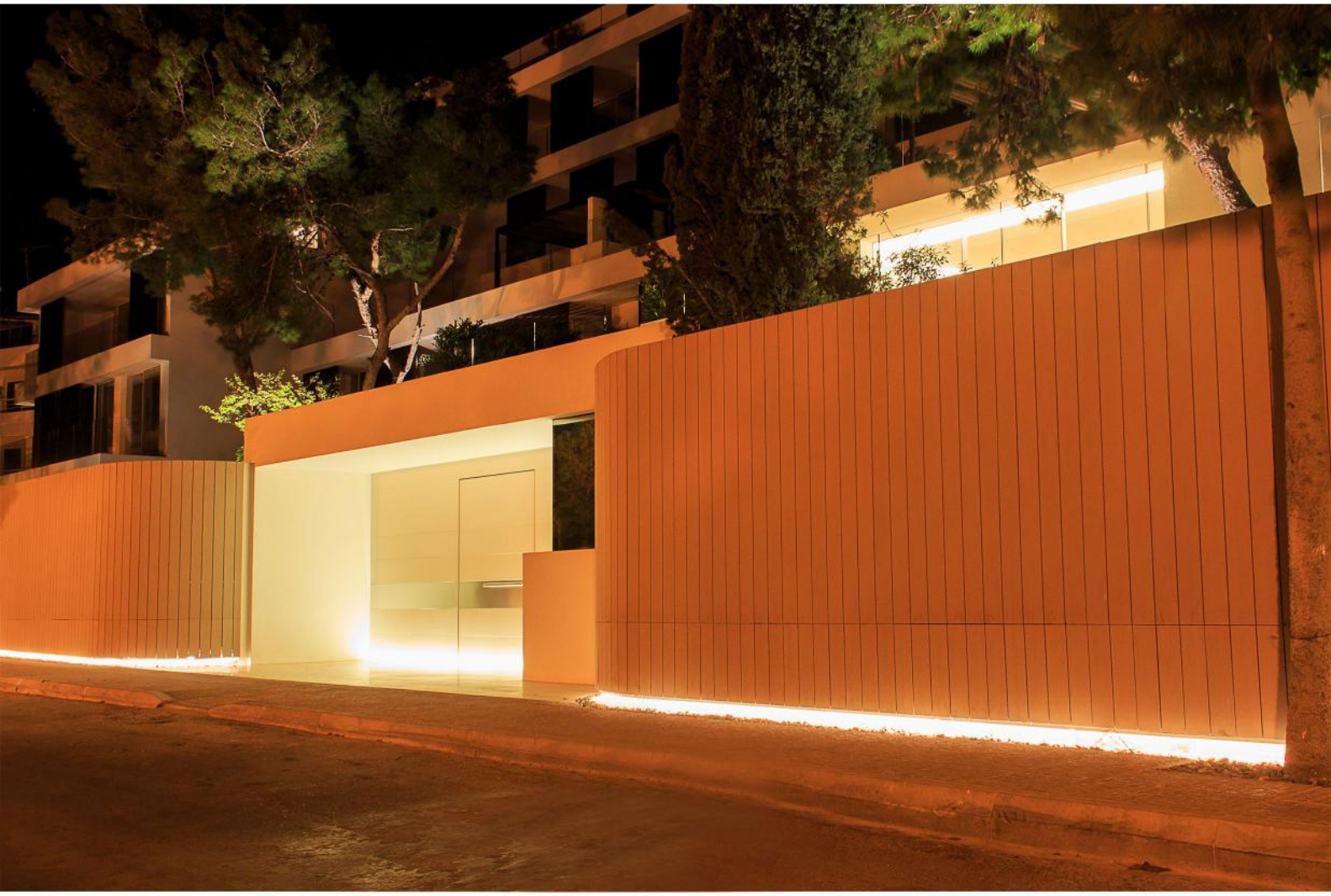
Resysta protects the rain forestProducts made of Resysta have the look and feel of real tropical wood. Therefore it can be used in many areas instead of for example Bangkirai, Mahogany, Teak or also the northern domiciled Douglas or Siberian larch. But for the products made of Resysta not even a single tree has to be cut down. That does not only benefit the rain forest as our „green lung", it especially pleases the inhabitants as their habitat is not endangered.

- very long durability
- minimal maintenance
- cheaper than comparable
- products in the long term

Economic Efficiency

The advantageous economic efficiency of products made of Resysta is based on two pillars. On one side the extreme resistance against humidity which is reflected in very long durability. Products made of Resysta are 100% water-resistant. Water is not absorbed, that is the reason, why the material is unaffected by humid weather. Products made of Resysta even can be installed directly in water without rotting or decaying. Due to this, products made of Resysta are more durable than wood or WPC – they are even resistant against fungus, rotting and termites.

On the other side the economic efficiency is based on the very low-maintenance for the material. Products made of Resysta are UV-resistant and therefore do not fade. Maintenance effort? Far from it! Cleaning is possible by steam cleaning – the costs for a durable and constantly beautiful facade or terrace are therefore kept to a minimum.



YOUR ADDED VALUE:

- Weather-resistant
- Frost-proof
- UV-resistant
- No swelling
- No cracking
- No splintering
- No rotting
- Non-slip
- Durability class 1 against fungal infestation
- Permanently colourfast
- Individual colour design
- No greying
- Long lifespan
- Low-maintenance
- Easy installation
- Recyclable
- Made in Germany

Colour concept

Whether it be classic or modern – with our colour glaze especially adapted to the surface, you can beautify your outdoor project even more. With selected colour shades you can easily and quickly create the surface finish of your desire and refinish it whenever you want. The water based formulation glaze (FVG) 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. If required the glaze can be revived in diluted form. All colour shades may be applied overlaying and can be intermixed. A transparent protective varnish protects the surfaces from wear, tear and safeguard it against environmental influences. Alternatively a colour treatment with the Resysta® Teak Oil is possible

Unique colour concept

1 x paint + 1 x sealant =

top-quality UV-resistance

c 53*
c 45*
c 29*
c 9010
c 9005
c 7016
c 28*
c 24 java
c 23 aged
c 6006
c 6002
c 5010
c 15 siam dunkel
c 14 siam
c 09 burma dunkel
c 3011
c 3001
c 53*
c 08 burma
c 26*
c 02*
c 52*
c 51 walnut
c 49*
c 47*

* Special colours

UV resistance

initial state after 2000 h

Your added value:

- Decorative effect
- Large selection of colours
- Surfaces do not flake off
- Permanently colourfast
- Low-maintenance surface structure

Cleaning / Care

Cleaning

The surface can be cleaned with cleaner RSC especially developed for Resysta. RSC surface cleaner is a powerful phosphate-free, highly concentrated and water-based all-purpose cleaner. Apply undiluted to remove stubborn soiling. For normal maintenance, use up to 1:40 diluted with water as surface cleaner. Usually it is sufficient to clean products made of Resysta regularly with a steam cleaner. Most of the time it is sufficient to clean visible dirt with a light to medium steam jet.

Care

To refresh and maintain all oiled Resysta surfaces it is best to use the Resysta Top Care Oil. TCR nourishes Resysta surfaces, and provides them with more saturation, new shine and freshness in one single work process. In the case of light fading, becoming dull or partial abrasion of the original oil film, TCR can prevent a complete new treatment of the area. TCR contains refined natural oils, soybean, sunflower and rapeseed oil, isoaliphates, wax dispersions, lead-free and barium-free driers. Maintenance and care instructions

Resysta Top Oil

Top oil is a maintenance oil for renovation, restoration and maintenance of all oiled Resysta surfaces. The light oil texture allows for easy application. Top oil nourishes Resysta surfaces and provides them with more saturation, new shine and freshness in one single work process. In the case of light fading, becoming dull or partial abrasion of the original oil film, top oil can prevent a complete new treatment of the surface. Top oil contains refined natural oils, soybean, sunflower and rapeseed oil, isoaliphates, wax dispersions, lead-free and barium-free driers.

Transparent Coloured Glaze/Stain

Transparent colored water-based glaze (stain) for the color design of surfaces. Resysta Glaze is ready to use and does not need to be diluted. One liter is sufficient for approx. 10-15 m² of Resysta surface, depending on application type and side of application (grooved /smooth). Resysta glaze is composed on the basis of a water-diluted paint system and colored transparent with high quality pigments. With transparent stained surfaces, the overall color tint is achieved by the interaction of the substrate color shade and the transparent color hue of the stain. The overall color is determined by the amount of the pigments applied.

Products

FLOORING PROFILE

Art. No.	21.00.0002
Material:	Resysta
Colour:	Natural
Measurements in mm (LxWxD):	2900 x 124 x 21

END PLATE 72 X 22

Art. No.	21.00.0007
Material:	Resysta
Colour:	Natural
Measurements in mm (LxWxD):	2900 x 70 x 20

END CAP 10 X 10

Art. No.	21.00.0005
Material:	Resysta
Colour:	Natural
Measurements in mm (LxWxD):	1450 x 10 x 10

DOWEL

Art. No.	21.00.0006
Material:	Resysta
Colour:	Natural
Measurements in mm (LxWxD):	1000 x Ø 12mm

JOIST

Art. No.	21.00.0003
Material:	Resysta
Colour:	Black
Measurements in mm (LxWxD):	2900 x 38 x 25

CLIP

Art. No.	21.00.0004
Material:	Nylon
Farbe:	Black
Measurements in mm (LxWxD):	30 x 20 x 10
Quantity per pack:	100

Turning profile

One material, Two sides

Technical Facts

Of course materials should not only look beautiful and feel good, the technical facts have to be correct, so that set standards at installation for example for industrial buildings or cruise liners are complied with. Products made of Resysta have been audited, tested and certificated many times

Thermal Expansion

Resysta is a thermoplastic and is affected by thermal expansion like many other materials. At installation it is absolutely necessary to keep the distances indicated in the installation guides.

Thermal coefficient of linear expansion (ASTM D696): 3,6 x 10-5 m/mC. This corresponds to a length expansion of 0,36 mm per meter at a temperature change of 10°C

Certification Overview

REGION	NORM	RESULT
Germany/Europe	EN ISO 11925-2	B2 normal flammability (with additional treatment B1 achievable)
US Norm NFPA	ASTM E84	Class A (flame spread 25, smoke emission 450)
Great Britain	BS 476 part 6&7	Class 1

Technical data

MATERIAL	Resysta homogenous	
RAW MATERIALS USED	Rice husk Common salt Mineral oil	approx. 60% approx. 22% approx. 18%
MATERIAL PROPERTIES		
Density	ASTM D2395:2002	approx. 1.46 g/cm³
Coefficient of linear thermal expansion	ASTM D696	3,6 x 10(-5) m/mC
Water Absorption & Humidity	ASTm D1037:2006a	Little up to no water absorption (only surface moistening)
Weathering and UV-Resistance	QUV Test	With glaze treatment Resysta surfaces are extremely resistant
Slippery Test (wet area barefoot)	DIN 51097	Class C (highest class)
Fire Rating (German/European norm)	EN ISO 11925-2	B2 normal flammable (with additional treatment B1 achievable)
Fire rating according NFPA (US Norm)	ASTM E84	Class A (flame propagation 25, smoke emission 450)
Fire rating (British Standard)	BS 476 Teil 6&7	Class 1
Durability - Resistance against wood-destroying fungi (basidiomycetes)	DIN V EN V 12038:2002	the material has not been affected, highest durability Class 1
Emission	LGA-tested safety & contamination	LGA Test passed
Brinell Hardness (HB)	EN 1534	81,1 N/mm2
Coefficient of sliding and friction μ untreated	EN 13893	0,46

Coefficient of sliding and friction μ with 2K varnish	EN 13894	0,52
Axial Withdrawal Force (of Screws)	EN 320.2011-07	5777 N
Thermal Conductivity (λ)	EN 12664	0.199 W/(mK)
Water Vapour Transmission	DIN EN ISO 12572	μ=1300 -> sd 7.22m diffusion inhibiting
Bending Strength	ISO 178	46 N/mm²
Bending Modulus	ISO 178	3850 N/mm²
Tensile Strength	ISO 527	21,8 N/mm²
Tensile Modulus	ISO 527	2340 N/mm²
Shearing Strength	EN 392	16,8 N/mm²
Durability - Resistance against rotting fungi	CEN/TS 15083-2	nearly no loss of weight, highest durability, class 1 (very durable)
Resistance against mold fungi and wood discoloring fungi	EN 15534-1:2012	Resistance against the wood discoloring fungi
Resistance against termites	ASTM D3345-08	High resistance against termites (Coptotermes curvignathus), nearly no weight loss – very high durability
Specific surface and volume resistances	DIN IEC 60093 measuring voltage 100 V	Surface resistance Rx=8,0*10(13) Ω
		Specific surface resistance α=8,1*10(14) Ω
		Volume resistance Rx=2,2*10(13) Ω
		Specific volume resistance α=6,3*10(14) Ω
PROCESSING		Like wood with wood processing machines: cutting, milling, drilling, sanding, gluing and screwing
Surface treatment		Only use Resysta glaze and varnishes

SALAMANDER®
DECKING, FENCE & FACADE
MADE OF Resysta®

assiourasbros
advanced wood technology

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