BUILDING INSPIRATIONS
A commitment to inspire and create beautiful functional homes and businesses
INDEX

RESYSTA
What is Resysta?
Why Resysta?

ARCHITECTURE
Decking
Cladding
Other Items

COLOR CONCEPT
Color Concept

PROPERTIES
Material Properties
Technical data

REFERENCES
Projects Worldwide
Awards

ENVIRONMENT
Zero Emission, Valuable Resource, 100% Recyclable
What is Resysta?
RICE HUSKS, COMMON SALT AND MINERAL OIL;

These three basic raw materials are the simple components used in Resysta, the innovative material which offers a new, creative horizon to designers and architects with its compelling and unique appearance.

Raw materials used:

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

UV RESISTANCE
Resysta is extremely resistant against UV radiation.

SUSTAINABILITY
Resysta mainly consists of rice husks – a by-product of rice production. Rice husks are a renewable resource that can be replaced in short cycles.

100% RECYCLABLE
Resysta can be ground up and added into the mix to create new Resysta products.
Why Resysta?
RESYSTA IS EXTREMELY WEATHER RESISTANT AND 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 in wellness and pool areas. Resysta is simply effective everywhere, no matter high strain, aggressive weather, and other environmental influences.

Furthermore, products made of Resysta provide for an especially beneficial eco-balance. Resysta reins superior regarding environmental health as it does not emit noxious substances into its surroundings. Like most synthetic materials, the polymeric material part of Resysta is made of petroleum and thus only a minute quantity of crude oil is necessary for its production. Both components of Resysta, the polymeric material along with its reinforcing fiber, 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, 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
WORKABILITY- JUST LIKE REAL WOOD

Our passion for wood drove us to develop not just any substitute, but a material that astounds even experts in terms of look, feel and weight.

The amazement we regularly experience from craftsmen shows us that we did everything right. We consider Resysta, our successful innovation, to be the evolution of wood.

Craftsmen can process the material like its natural cousin: sawing, drilling, glazing, sanding, oiling etc. are all possible as if working with wood.
Xenon Test

**IPE**
Initial state after 2000 h

IPE completely bleached surface, major structural differences early wood/late wood

**WPC**
Initial state after 2000 h

WPC very severe change in color (bleaching), several white particles individually visible

**Resysta + Stain (Walnut)**
Initial state after 2000 h

Resysta + Stain (Walnut) very slight change in color, individual white particles slightly visible
100% Recyclable

The material Resysta mostly consists of rice husks. Rice husks are a by-product of the food industry and mostly have no further use. Resysta consists of approx. 60% of waste from the food industry.

Everything originating from Resysta, waste at assembling, sanding dust, sawdust or residues can be recycled. It is shredded and reintroduced to the production process. Additionally a new Resysta product can be made out of an old product at any time. Because of this benefit raw materials for production are in use for an incredibly long time. This is how products “made of Resysta” become extremely sustainable.
1330 OCEAN DRIVE - PH
INTERIOR DESIGN BY SOJO DESIGN
<table>
<thead>
<tr>
<th>Product Code</th>
<th>Description</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>RES010612</td>
<td>PLATINUM DECKING 1&quot; x 5½&quot;</td>
<td></td>
</tr>
<tr>
<td>RES010616</td>
<td>PLATINUM DECKING 1&quot; x 7½&quot;</td>
<td></td>
</tr>
<tr>
<td>RESG010612</td>
<td>GOLD DECKING 1&quot; x 5¾&quot;</td>
<td></td>
</tr>
<tr>
<td>RESJ010212</td>
<td>JOIST 1&quot; x 1½&quot;</td>
<td></td>
</tr>
<tr>
<td>RES010312</td>
<td>END PLATE 13/16&quot; x 2¾&quot;</td>
<td></td>
</tr>
<tr>
<td>RESDOWEL3</td>
<td>DOWEL ½&quot; OD</td>
<td></td>
</tr>
<tr>
<td>RESEDGE6</td>
<td>EDGE CAP ½&quot; x ½&quot;</td>
<td></td>
</tr>
</tbody>
</table>
RESEND6
END CAP
13/16” x 5/8”

RESF12812
FASCIA BOARD
½” x 8”

RESCLIPS200W
incl. 1 1/2” SCREWS
Decking Clip (Cover 100 SQFT)
incl. Screws for Wood Joist

RESCLIPS200A
incl. 1” SCREWS
Decking Clip (Cover 100 SQFT)
incl. Screws for Aluminum Joist

RESCLIPSS125W
incl. SCREWS
Start / End Clip SS1
incl. Screw for Wood Joist

RESCLIPSS125A
incl. SCREWS
Start / End Clip SS1
incl. Screw for Aluminum Joist
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESCPH120412</td>
<td>4” FLAT SIDING</td>
<td>12”</td>
</tr>
<tr>
<td>RESCPH120612</td>
<td>6” FLAT SIDING</td>
<td>1/2” x 6”</td>
</tr>
<tr>
<td>RESCPH011212</td>
<td>12” FLAT SIDING</td>
<td>1” x 12”</td>
</tr>
<tr>
<td>RESCPSS25</td>
<td>1” TEC Shoulder Siding Screw</td>
<td></td>
</tr>
<tr>
<td></td>
<td>for Aluminum Furring Strips</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1000 Screws)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1”</td>
<td></td>
</tr>
</tbody>
</table>
Cladding
RESP1223412
CLADDING (2Ch)
5/8” x 2¾”

RESP3423412
CLADDING (2Ch)
13/16” x 2¾”

RESP1231212
CLADDING (3Ch)
5/8” x 3½”

RESP340612
CLADDING (4Ch)
13/16” x 5½”
RESP340812
CLADDING (7Ch)
13/16" x 7 7/8"

RESCLIPHF100W
incl. SCREWS
Facade Clips (100 Clips, 300 screws) for Wood Batten

RESCLIPHF100A
incl. SCREWS
Facade Clips (100 Clips, 300 screws) for Aluminum Hat Channel

RESCLIPHF100A
incl. SCREWS
Facade Clips (100 Clips, 300 screws) for Aluminum Hat Channel
RESPS41241212
POST SLEEVE
4½” x 4½”

RESGC020616N
TOP RAIL
1½” x 5½”

RESGC11223412
BOTTOM RAIL
1½” x 2¼”

RESS010312
SOLID RECTANGLE SECTION
1” x 3”

RESS1120312
SOLID RECTANGLE SECTION
1 1/2” x 3”

RESAR0010212
HANDRAIL/FENCE PROFILE
¾” x 1¼”
RESARO1340712
SUN SHEILD PROFILE
1¾” x 7”

RESARCAP02
CAP FOR HANDRAIL/FENCE PROFILE
¾” x 1¾”

RESARCAP07
CAP FOR SUN SHEILD PROFILE
1¾” x 7”

RESIN25812
INLAY / VENEER
2.5mm x 8”

RESIN5812
INLAY / VENEER
5mm x 8”
Colour design creation of the surfaces is easy and quick. The water-based colors are odorless, quick-drying and can be refinished any time. The direct pigment application onto the surface ensures extremely long-lasting UV-resistance.
### STANDARD COLOR

<table>
<thead>
<tr>
<th>Color</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Burma</td>
<td>C08</td>
</tr>
<tr>
<td>Siam</td>
<td>C14</td>
</tr>
<tr>
<td>Aged Teak</td>
<td>C23</td>
</tr>
<tr>
<td>Java</td>
<td>C24</td>
</tr>
<tr>
<td>Cape Cod</td>
<td>C42</td>
</tr>
<tr>
<td>Walnut</td>
<td>C51</td>
</tr>
</tbody>
</table>

### SPECIAL COLOUR

<table>
<thead>
<tr>
<th>Color</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pale Golden</td>
<td>C02</td>
</tr>
<tr>
<td>Dark Burma</td>
<td>C09</td>
</tr>
<tr>
<td>Dark Siam</td>
<td>C15</td>
</tr>
<tr>
<td>Rust</td>
<td>C26</td>
</tr>
<tr>
<td>Light Taupe</td>
<td>C28</td>
</tr>
<tr>
<td>Dark Taupe</td>
<td>C29</td>
</tr>
<tr>
<td>Mustard Green</td>
<td>C45</td>
</tr>
<tr>
<td>Sage</td>
<td>C46</td>
</tr>
<tr>
<td>Green/Blue</td>
<td>C47</td>
</tr>
<tr>
<td>Lavender</td>
<td>C49</td>
</tr>
<tr>
<td>Terra Cotta</td>
<td>C52</td>
</tr>
<tr>
<td>Palisander</td>
<td>C71</td>
</tr>
<tr>
<td>Dark Grey</td>
<td>C53</td>
</tr>
<tr>
<td>Mahogany</td>
<td>C64</td>
</tr>
<tr>
<td>Yellow Teak</td>
<td>C73</td>
</tr>
<tr>
<td>Concrete Grey</td>
<td>C77</td>
</tr>
<tr>
<td>Bright Red</td>
<td>C3001</td>
</tr>
<tr>
<td>Red</td>
<td>C3011</td>
</tr>
<tr>
<td>Blue</td>
<td>C5010</td>
</tr>
<tr>
<td>Apple Green*</td>
<td>C6002</td>
</tr>
<tr>
<td>Moss Green*</td>
<td>C6005</td>
</tr>
<tr>
<td>Anthracite Grey*</td>
<td>C7016</td>
</tr>
<tr>
<td>Black</td>
<td>C9005</td>
</tr>
<tr>
<td>White*</td>
<td>C9010</td>
</tr>
</tbody>
</table>

"*" indicates a limited availability color.
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

<table>
<thead>
<tr>
<th>Property</th>
<th>Standard/Method</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>ASTM D2395: 2002</td>
<td>Approx. 1.46 g/cm³</td>
</tr>
<tr>
<td>Coefficient of Linear Thermal Expansion</td>
<td>ASTM D696</td>
<td>3.6 x 10⁻⁵ K⁻¹</td>
</tr>
<tr>
<td>Water absorption &amp; Humidity</td>
<td>ASTM D1037: 2006a</td>
<td>Little up to no water absorption (only surface moistening)</td>
</tr>
<tr>
<td>Weathering and UV Resistance</td>
<td>QUV Test</td>
<td>With glaze treatment, Resysta surfaces are extremely resistant</td>
</tr>
<tr>
<td>Slippery Test (wet area barefoot)</td>
<td>DIN 51097</td>
<td>Class C (highest class)</td>
</tr>
<tr>
<td>Fire Rating</td>
<td>EN ISO 11925- 2</td>
<td>B2 (E) - standard flammable (with additional treatment B1 reachable)</td>
</tr>
<tr>
<td>Fire Rating according NFPA (US Norm)</td>
<td>ASTM E84</td>
<td>Class A (flame propagation 25, smoke emission 450)</td>
</tr>
<tr>
<td>Fire Rating (British standard)</td>
<td>BS 476 Teil 6&amp;7</td>
<td>Class 1</td>
</tr>
<tr>
<td>Fire Rating (Australian standard)</td>
<td>AS 1530. 8. 1: 2007 Bush Fire Test</td>
<td>BAL A40</td>
</tr>
<tr>
<td>Durability – Resistance against wood-destroying fungi</td>
<td>DIN ENV 12038: 2002</td>
<td>No attack by the test fungi, highest durability class 1 (very durable)</td>
</tr>
<tr>
<td>Emission</td>
<td>LGA- tested safety &amp; contamination</td>
<td>LGA test passed</td>
</tr>
<tr>
<td>Brunel Hardness (HB)</td>
<td>EN 1534</td>
<td>81.1 N/mm</td>
</tr>
<tr>
<td>Coefficient of sliding and friction : Untreated</td>
<td>EN 13893</td>
<td>0.46</td>
</tr>
<tr>
<td>Coefficient of sliding and friction : With 2K varnish</td>
<td>EN 13894</td>
<td>0.52</td>
</tr>
<tr>
<td>Axial Withdrawal Force of Screws</td>
<td>EN 320. 2011- 07</td>
<td>5777 N</td>
</tr>
<tr>
<td>Thermal conductivity</td>
<td>EN 12664</td>
<td>0.199 W/(mK)</td>
</tr>
<tr>
<td>Water Vapour Transmission</td>
<td>DIN EN ISO 12572</td>
<td>μ = 1300 -&gt; sd 7.22m diffusion blocking</td>
</tr>
<tr>
<td>Bending Strength</td>
<td>ISO178</td>
<td>46 N/mm</td>
</tr>
<tr>
<td>Bending Modulus</td>
<td>ISO 178</td>
<td>3850 N/mm</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>ISO 527</td>
<td>21.8 N/mm</td>
</tr>
<tr>
<td>Tensile Modulus</td>
<td>ISO 527</td>
<td>2340 N/mm</td>
</tr>
<tr>
<td>Shearing Strength</td>
<td>ISO 527</td>
<td>16.8 N/mm</td>
</tr>
<tr>
<td>Durability – Resistance against rotting fungi</td>
<td>CEN/TS ISO833- 2</td>
<td>No attack by the test fungi, highest durability class 1 (very durable)</td>
</tr>
<tr>
<td>Durability against mold and wood discoloring fungi</td>
<td>EN ISO534- 1: 2012</td>
<td>Durability against the wood discoloring fungi (very durable)</td>
</tr>
<tr>
<td>Durability against subterranean termites</td>
<td>ASTM D3345- 08</td>
<td>High durability against Subterranean Termites-nearly no weight loss</td>
</tr>
<tr>
<td>Specific Surface and Volume Resistances</td>
<td>DIN IEC 60093 Measuring voltage 100V</td>
<td>Surface resistance Rx= 8,0<em>10¹³ Specific surface resistance $\alpha = 8,1</em>10^{14}$ $\Omega$ Volume resistance Rx = 2,2<em>10¹³ $\Omega$ Specific volume resistance $\alpha = 6,3</em>10^{14}$ $\Omega$</td>
</tr>
</tbody>
</table>
IN THE PAST 10 YEARS
More than 1,000 projects have been realized world-wide

Clifton Apartments | Cape Town, South Africa
Crowne Plaza Hotel | Singapore
de Zalze Golf Club | Stellenbosch, South Africa
Eco Lodge | Malawi, South Africa
Four Seasons Hotel | Langkawi, Malaysia
Four Seasons Hotel | Seychelles, Africa
Grand Copthorne Waterfront Hotel | Singapore
Hardrock Hotel | Penang, Malaysia
Hilton Hotel | Singapore
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
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 - LEED Certification

100% wood free, water and skin resistant, splinter free
LEED, or Leadership in Energy and Environmental Design, is the most widely used green building rating system in the world. Available for virtually all building, community and home project types, LEED provides a framework to create healthy, highly efficient and cost-saving green buildings.

LEED certification is a globally recognized symbol of sustainability achievement.
MATERIALS & RESOURCES
MR credit 6 “Rapidly Renewable Materials” - Up to 1 point
MRS (based on project location and U.S. production location) - Up to 2 points

INDOOR ENVIRONMENTAL QUALITY
EQ credit 4.2 “Low-Emitting Materials: Paints & Coatings” - Up to 1 point

INNOVATION & DESIGN PROCESS
ID Credit 1 - “Innovation in Design” - Up to 1 point

CATEGORIES
Sustainable Sites - 6 Possible Points
Water Efficiency - 10 Possible Points
Energy and Atmosphere - 35 Possible Points
Materials and Resources - 14 Possible Points
Indoor Environmental Quality - 15 Possible Points
Innovation in Design - 6 Possible Points
Regional Priority - 4 Possible Points
It is time for Resysta. Every minute of every day, thousands of square meters of the tropical rain forests are cleared forever.
ZERO EMISSION PRODUCT
Owing to the bonding of carbon dioxide in the rice husks – the main component of Resysta – the carbon dioxide arising from production and transport is compensated. Durability of Resysta actively contributes to a positive eco-balance.

VALUABLE RESOURCE
Resysta is made from rice husks, valuable resource. So far, rice husks have only been a by-product of rice production. Rice farms are now benefited from selling the husks.

100% RECYCLABLE
Even after many years of use, the material can be recycled. Resysta can be ground up and become new Resysta products.
The amount of rain forests destroyed each year is equal to half the size of England. At this rate the rain forests will vanish from our planet in a hundred years.

The rain forests are the lung of our planet. Our »green lung« absorbs a huge amount of carbon dioxide and are essential for preventing climate change. Saving the rain forest, however, is not easy as long as the demand for tropical wood is increasing.

**It is time for us to think green.**

With Resysta, you are contributing to the protection of the rain forests. Resysta is absolutely wood free—thus not requiring a single tree to be harvested.