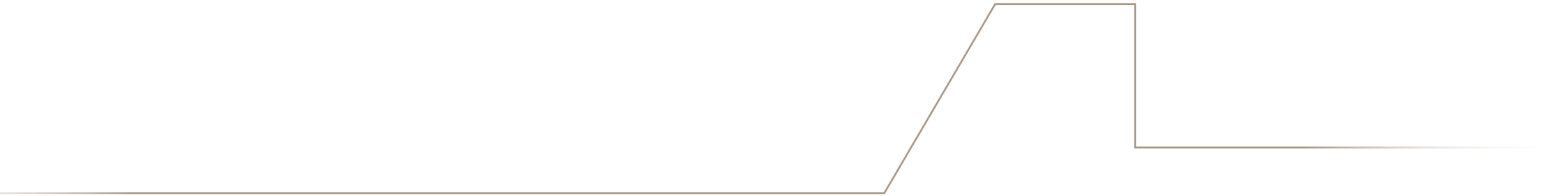
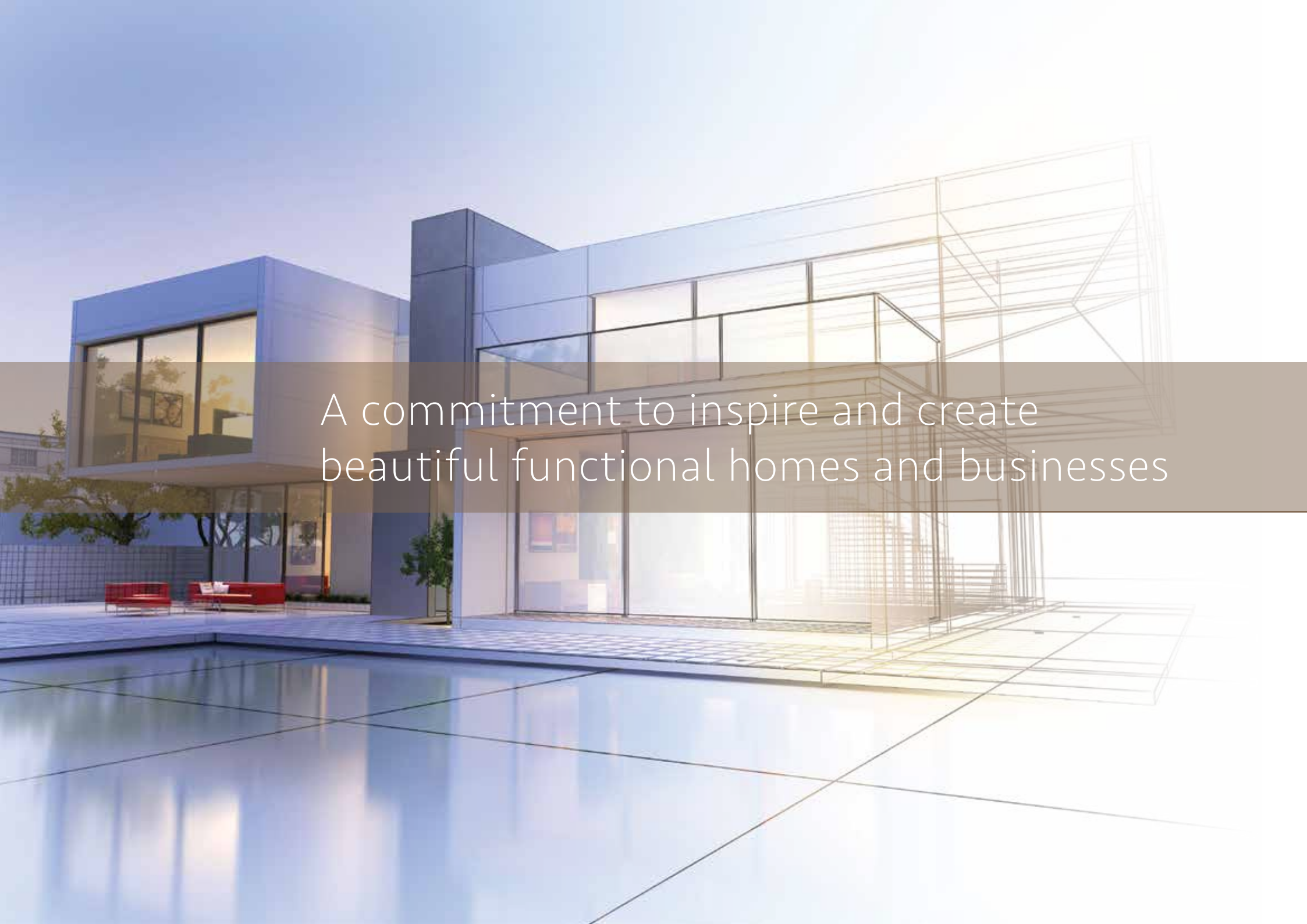
Building Inspirations

Resysta®




A commitment to inspire and create
beautiful functional homes and businesses

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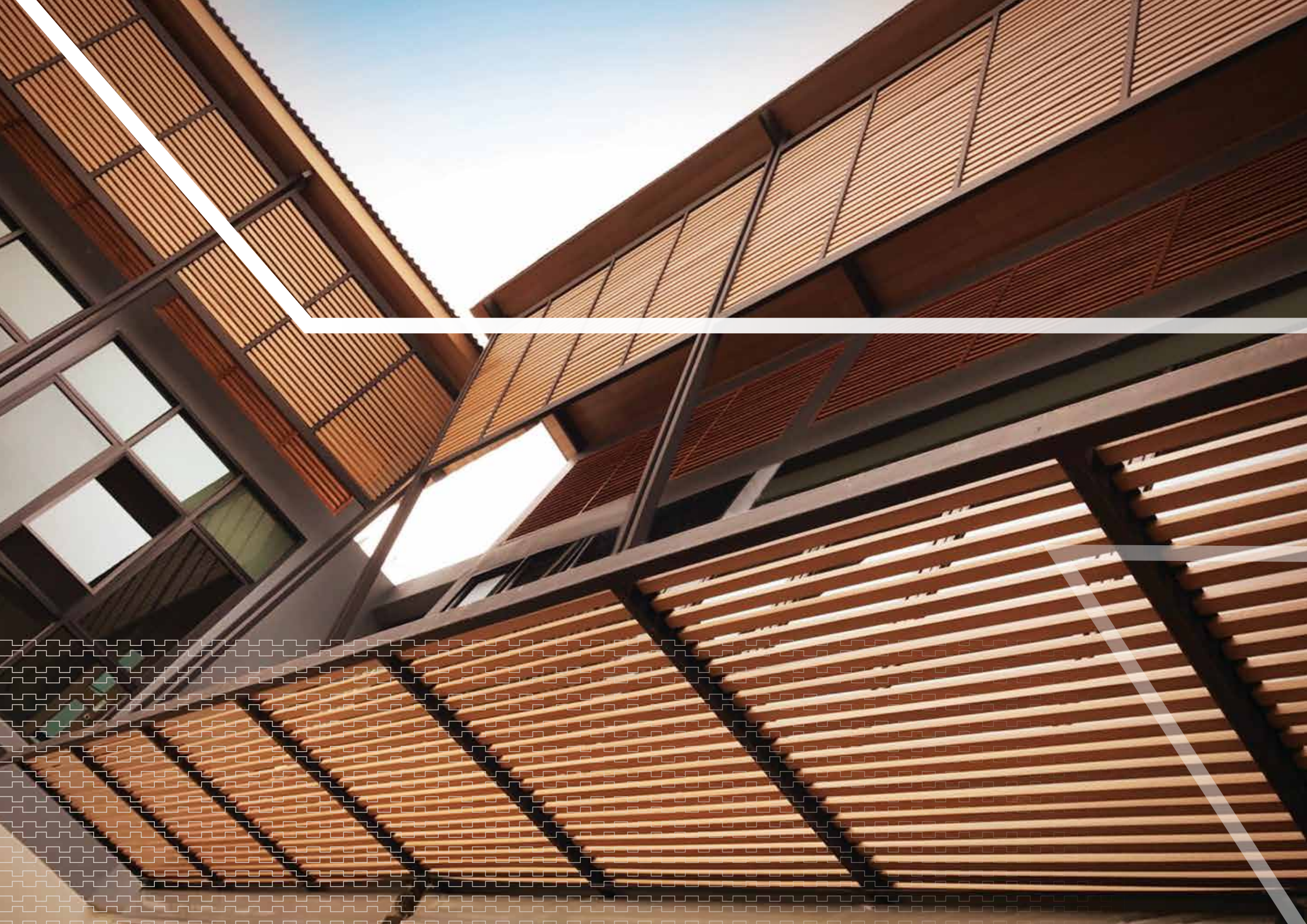
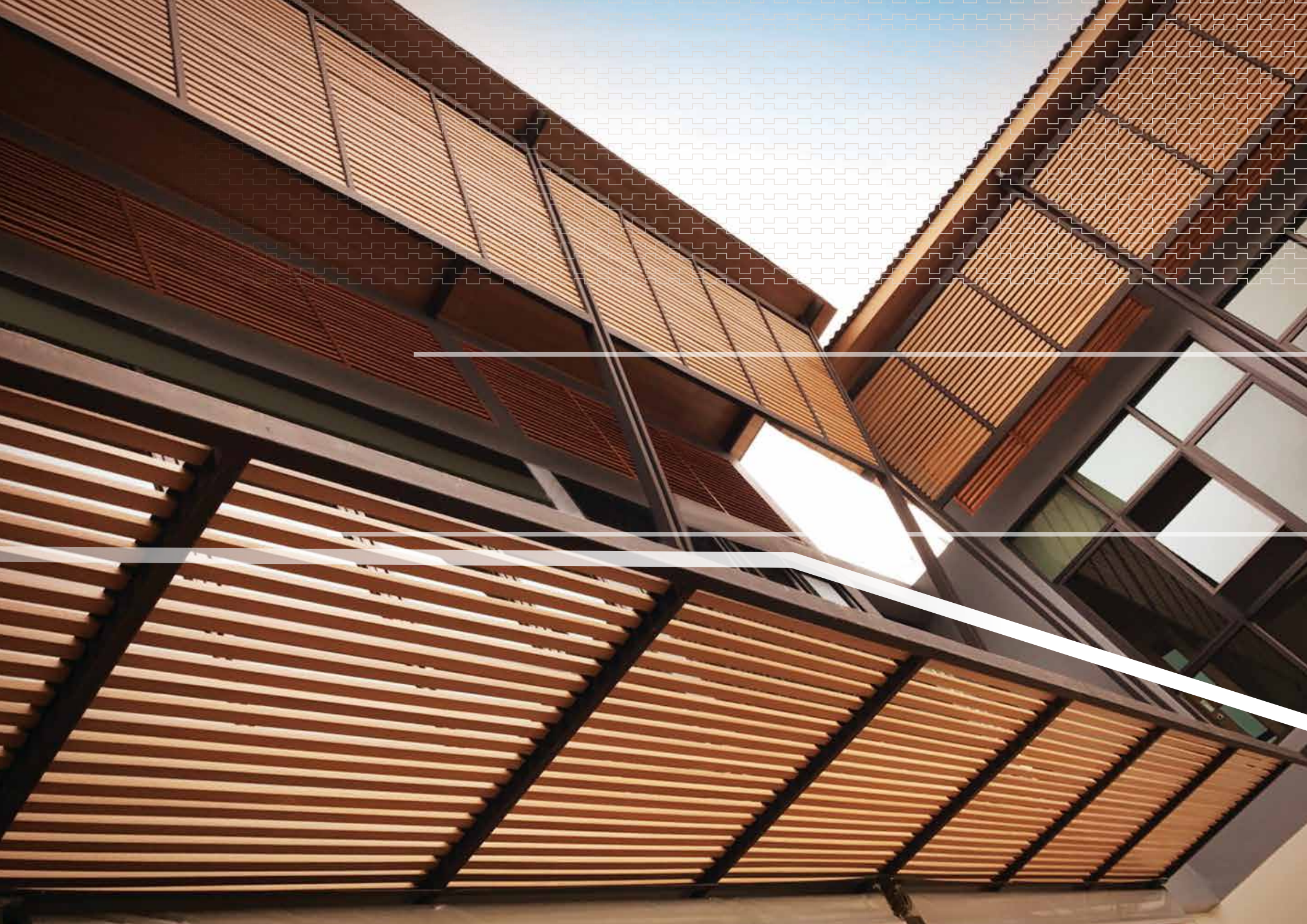
Zero Emission, Valuable Resource, 100% Recyclable





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 RESISTATNCE

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?

R&D

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

(Professor Dr. Stetter)

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®

initial state after 2000 h

RESYSTA + STAIN (WALNUT)
very slight change in color,
individual white particles slightly
visible

100% Recyclable

Green Product Award

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.

UPCYCLING

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.

RECYCLING

Decking

1330 OCEAN DRIVE - PH

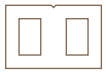
Interior Design by SOJO Design

RES010612
RES010616
PLATINUM DECKING
1" x 5½"

RES010812
RES010816
PLATINUM DECKING
1" x 7½"

RESG010612
RESG010616
GOLD DECKING
1" x 5½"

RESJ010212
JOIST
1" x 1½"



RES010312
END PLATE
13/16" x 2¾"

RESDOWEL3
DOWEL
½" OD

RESEDGE6
EDGE CAP
½" x ½"

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

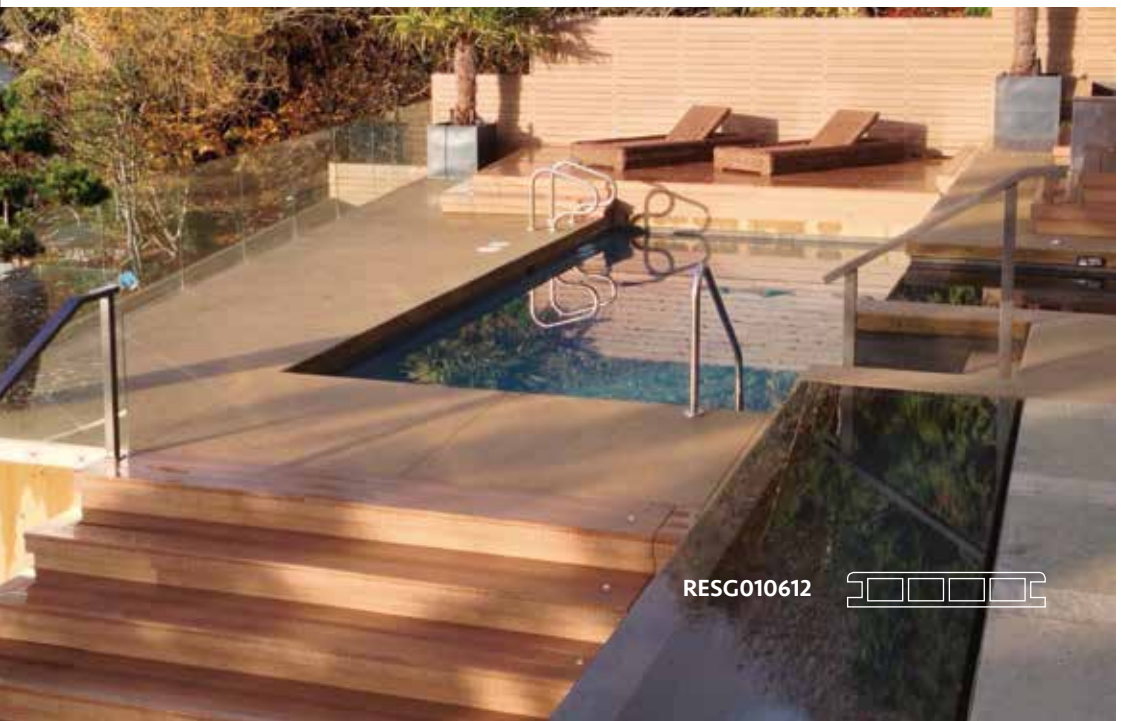
RESCLIPS200A
incl. 1" SCREWS
Decking Clip (Cover 100 SQFT)
incl. Screws for Aluminum Joist

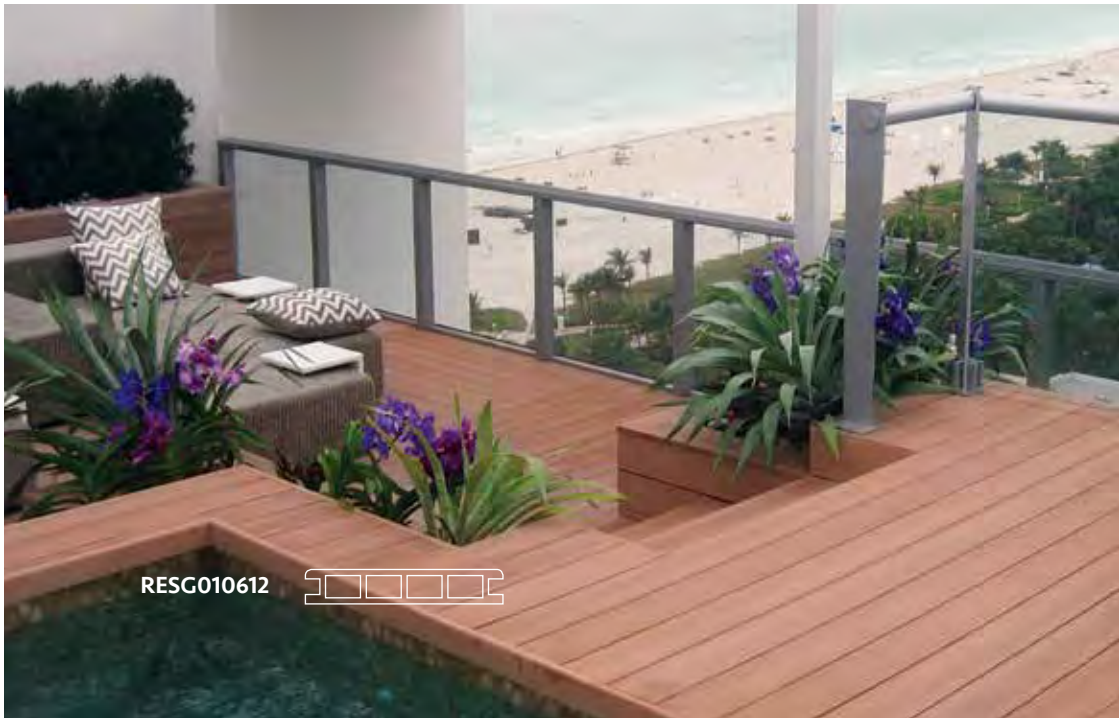
RESCLIPSS125W
incl. SCREWS
Start / End Clip SS1
incl. Screw for Wood Joist

RESCLIPSS125A
incl. SCREWS
Start / End Clip SS1
incl. Screw for Aluminum Joist


RES010612


RES010612


RESG010612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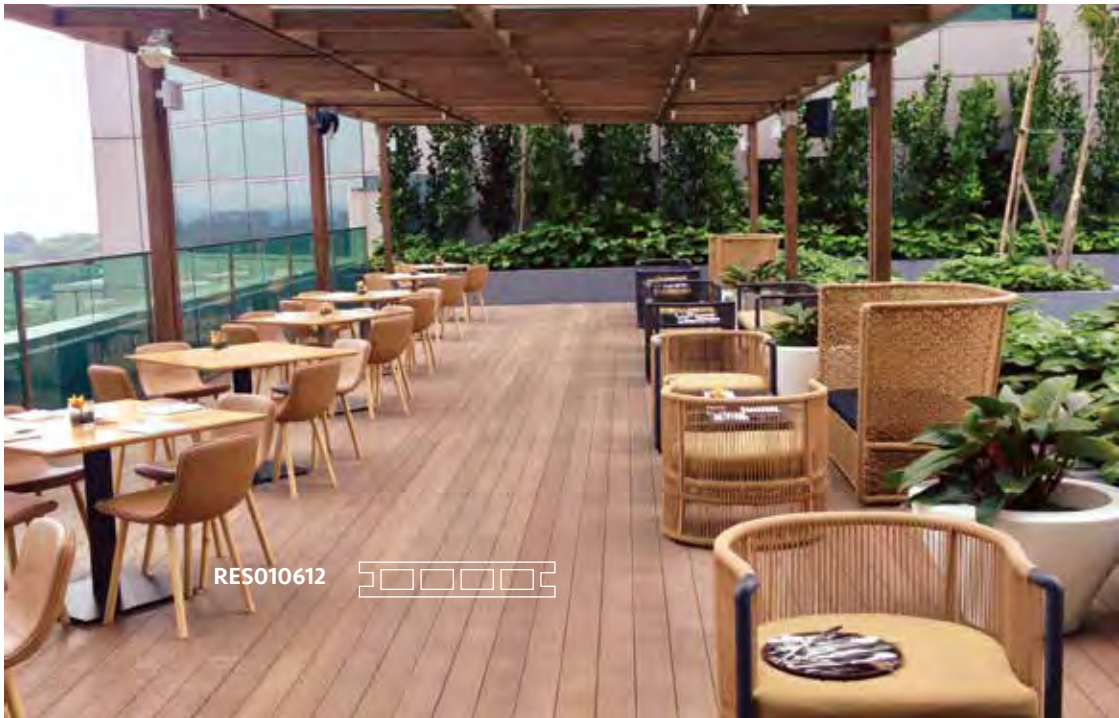
RESG010612

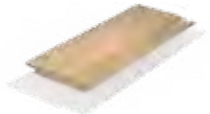

RES010612


RES010612

RES010612

Siding

RESCPH120412
4" FLAT SIDING
12"



RESCPH120612
6" FLAT SIDING
1/2" x 6"

RESCP120612
6" FLAT SIDING
1/2" x 6"

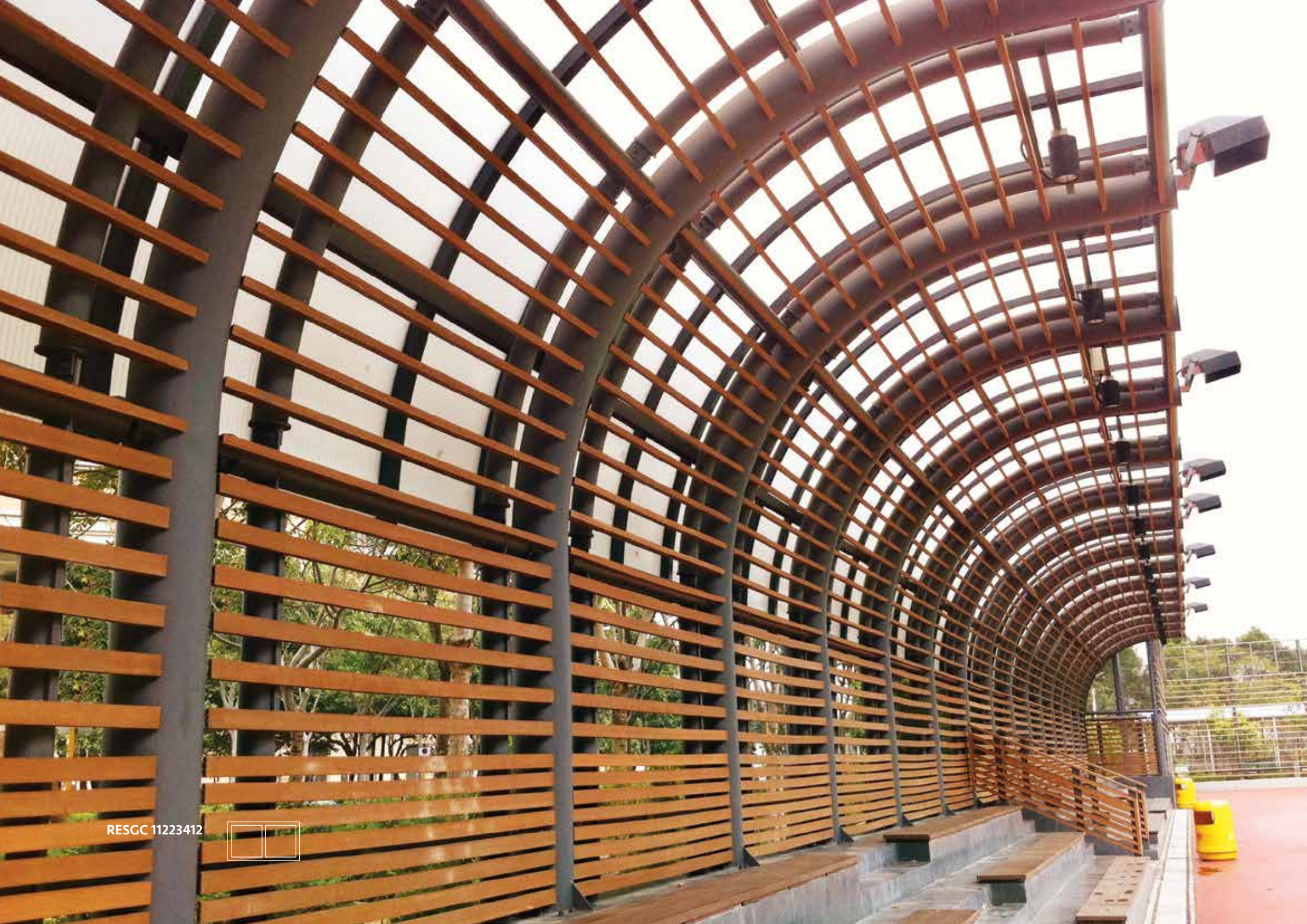
RESCPH011212
12" FLAT SIDING
1" x 12"

RESCPSS25
1" TEC Shoulder Siding Screw
for Aluminum Furring Strips
(1000 Screws)
1"

RESP 340612

RESGC 11223412

RESP 340612



RESGC 11223412

RESP 340612

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

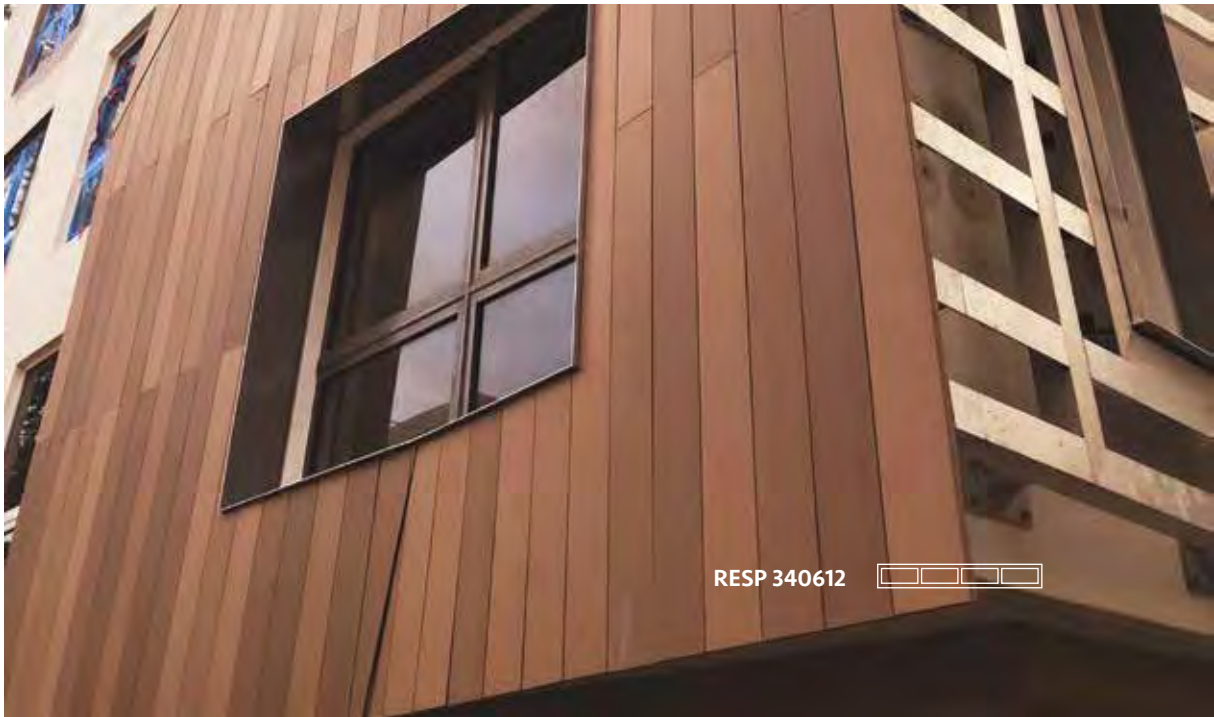
RESCLIPHF100A
incl. SCREWS
Facade Clips (100 Clips, 300 screws) for Aluminum Hat Channel

RESP 340412

RES 010312

CP 140

RESP 340612



RESP 340612

RESP 340612

Other items

RESPS41241212
POST SLEEVE
4½" x 4½"

RESGC020616N
TOP RAIL
1½" x 5½"

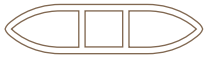
RESGC11223412
BOTTOM RAIL
1½" x 2¾"

RESS010312
SOLID RECTANGLE SECTION
1" x 3"

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

RESARO010212
HANDRAIL/FENCE PROFILE
¾" x 1¾"

RESARO1340712
SUN SHEILD PROFILE
1¾" x 7"

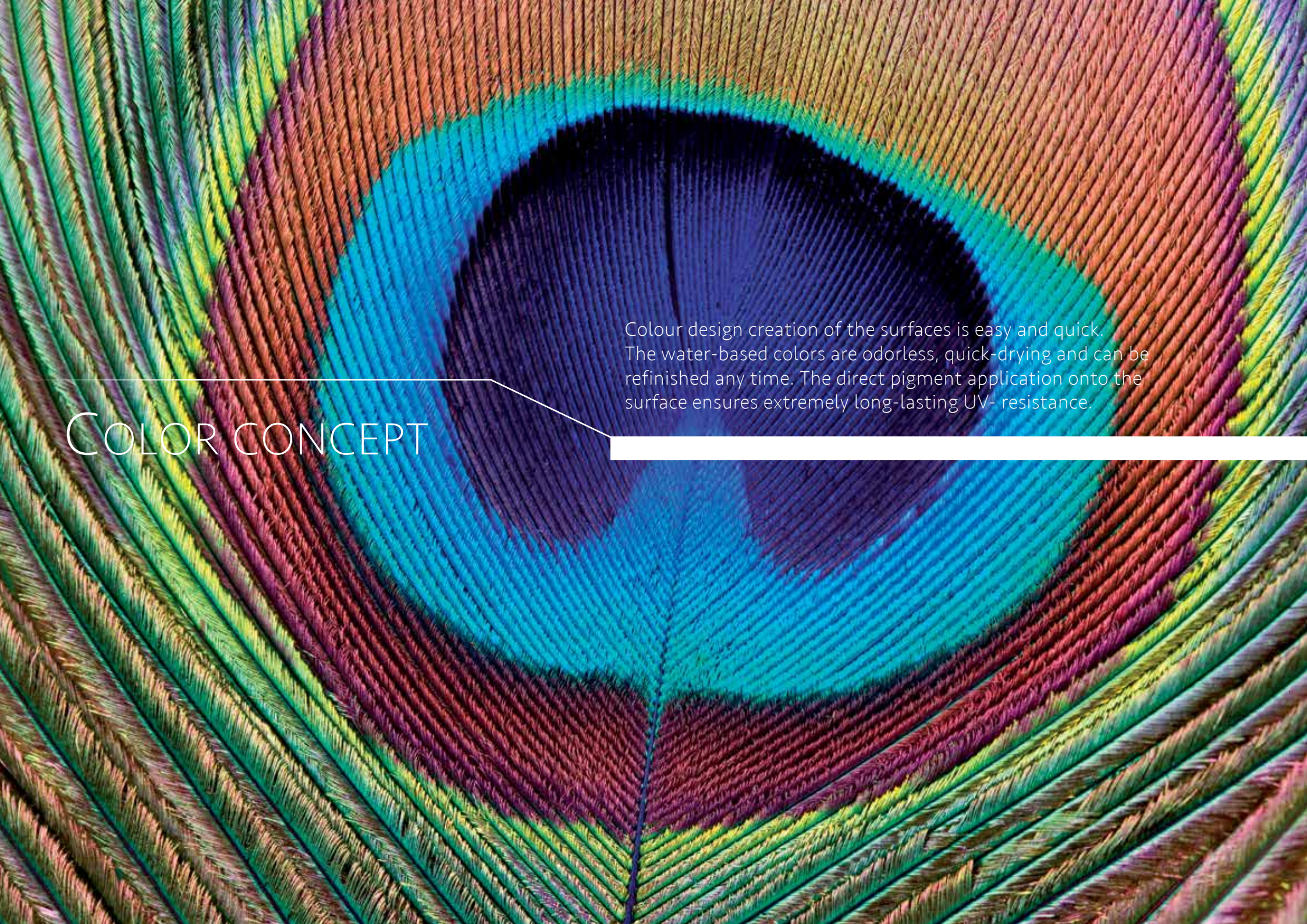


RESARCAP02
CAP FOR HANDRAIL/FENCE PROFILE
¾" x 1¾"

RESARCAP07
CAP FOR SUN SHEILD PROFILE
1¾" x 7"

RESIN25812
INLAY / VENEER
2.5mm x 8"

RESIN5812
INLAY / VENEER
5mm x 8"



Color concept

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


Burma **(C08)**


Siam **(C14)**


Aged Teak **(C23)**


Java **(C24)**


Cape Cod **(C42)**


Walnut **(C51)**

SPECIAL COLOUR


Pale Golden **(C02)**


Dark Burma **(C09)**


Dark Siam **(C15)**


Rust **(C26)**


Light Taupe **(C28)**


Dark Taupe **(C29)**


Mustard Green **(C45)**


Sage **(C46)**


Green/Blue **(C47)**


Lavender **(C49)**


Terra Cotta (**C52)**


Palisander **(C71)**


Dark Grey **(C53)**


Mahogany **(C64)**


Yellow Teak* **(C73)**


Concrete Grey **(C77)**


Bright Red **(C3001)**


Red* **(C3011)**


Blue **(C5010)**


Apple Green* **(C6002)**


Moss Green* **(C6005)**


Anthracite Grey* **(C7016)**


Black **(C9005)**

White* **(C9010)**

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 g/cm
Coefficient of Linear Thermal Expansion	ASTM D696	3.6 x 10(-5) 1/K
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	EN ISO 11925- 2	B2 (E) - standard flammable (with additional treatment B1 reachable)
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
Fire Rating (Australian standard)	AS 1530. 8. 1- 2007 Bush Fire Test	BAL A40
Durability – Resistance against wood-destroying fungi	DINV ENV 12038: 2002	No attack by the test fungi, highest durability class 1 (very durable)
Emission	LGA- tested safety & contamination	LGA test passed
Brunel Hardness (HB)	EN 1534	81.1 N/mm
Coefficient of sliding and friction ! Untreated	EN 13893	0,46
Coefficient of sliding and friction ! With 2K varnish	EN 13894	0,52
Axial Withdrawal Force (of Screws)	EN 320. 2011- 07	5777 N
Thermal conductivity	EN 12664	0.199 W/(mK)
Water Vapour Transmission	DIN EN ISO 12572	μ = 1300 -> sd 7.22m diffusion blocking
Bending Strength	ISO178	46 N/mm
Bending Modulus	ISO 178	3850 N/mm
Tensile Strength	ISO 527	21.8 N/mm
Tensile Modulus	ISO 527	2340 N/mm
Shearing Strength	ISO 527	16.8 N/mm
Durability – Resistance against rotting fungi	CEN/TS 15083- 2	No attack by the test fungi, highest durability class 1 (very durable)
Durability against mold and wood discolouring fungi	EN 15534- 1: 2012	Durability against the wood discolouring fungi (very durable)
Durability against subterranean termites	ASTM D3345- 08	High durability against Subterranean Termites- nearly no weight loss
Specific Surface and Volume Resistances	DIN IEC 60093 Measuring voltage 100V	Surface resistance Rx= 8,0*10(13) 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

Globally renowned institutions carry out tests according to German, British, European and US standards.

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 Season Hotel | Langkawi, Malaysia

Four Season 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

GREEN LABEL
Made from 50% recycled content
Certification number: 043-012

MATERIAL PREIS 2013
Red Dot award: product design 2012 for Resysta® Marine

RED DOT 2012
Resysta wins the Red Dot product design award 2012

DETAIL 2011
Resysta wins the Detail competition 2011

DWELL 2011
Resysta wins the design and product award 2011

AIT INNOVATION 2011
Resysta wins the innovation award for sustainability

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.

Made with Resysta® THE BETTER WOOD

can contribute points as follows:

MATERIALS & RESOURCES

MR credit 6 “Rapidly Renewable Materials” - Up to 1 point
MR5 (based on project location and U.S. production location) - Up to 2 points

INDOOR ENVIRONMENTAL QUALITY

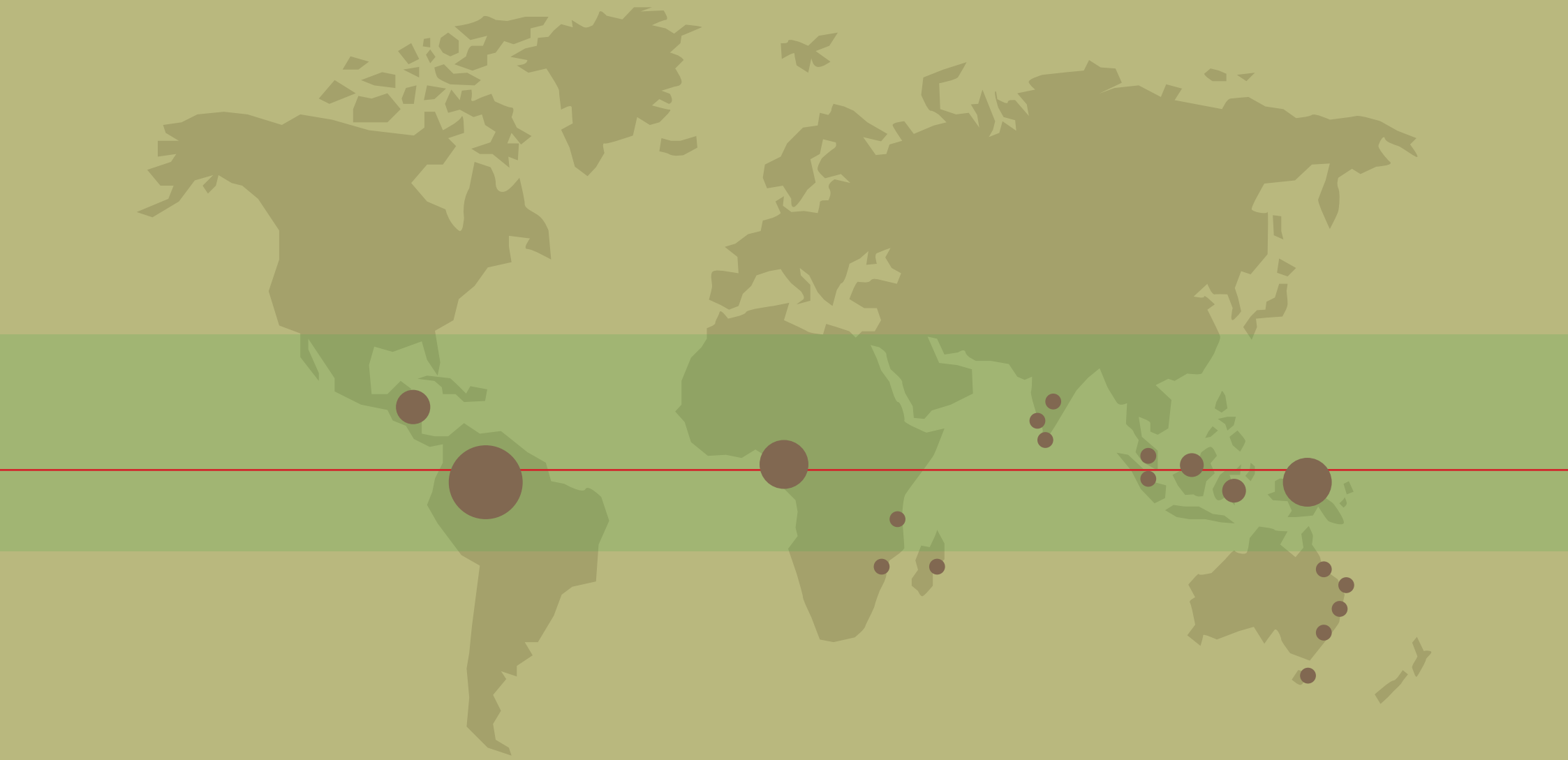
EQ credit 4.2 “Low-Emitting Materials: Paints & Coatings” - Up to 1 point

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.

Think green, think resysta

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.

BUILDING INSPIRATIONS

Resysta®

www.resystausa.com

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