REZIGN®

By Planq

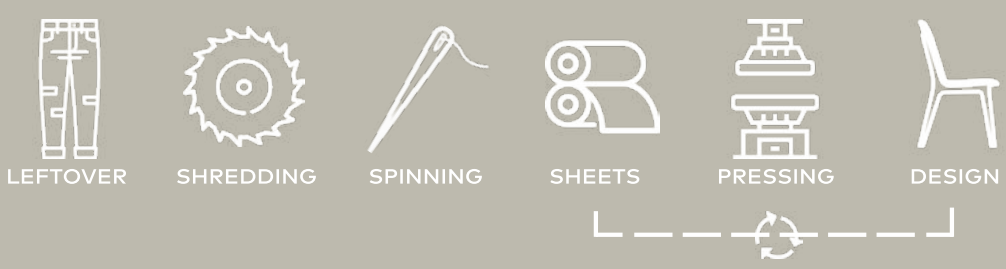
TECHNICAL SHEET
REZIGN® VENEER

www.rezign.com

From textile waste to a recycled veneer

With Rezign, we believe to make an impact by inspiring the world to create beautiful designs made of waste materials. By using recycled materials made of textile residues and bio-based resources, we aim for creators to bridge the gap between contemporary design and environmental consciousness.

In order for creating a better tomorrow with zero textile waste, but also to inspire creators to design high-end products made of low-valued materials in order to have a positive impact on the interior as well as the fashion industry.



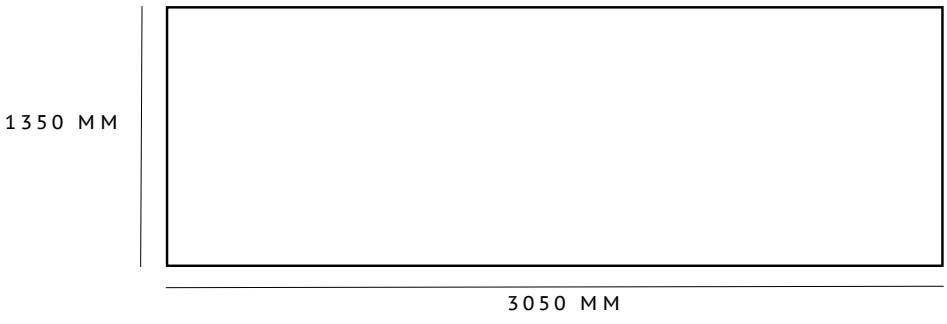
Rezign® Veneer: General information

The veneer is made of textile waste, such as old denim, army clothing, suits and white denim. But also from biobased fibres, such as flax, hemp, and jute coffee bags.
The fibres are first shredded into small pieces, which will then be carded into felt.
The felt is eventually pressed with a biodegradable binder into a hard veneer.

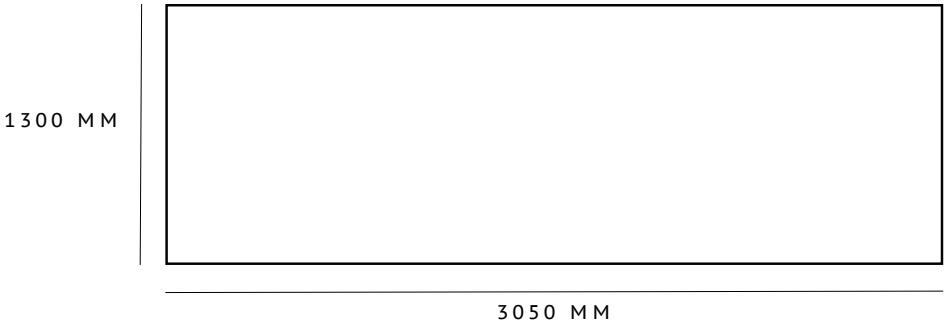
Composition

Rezign consists of 50% recycled clothing fibers, bound together with a biological binder based on potato starch residue. This can be considered a composite (a combined product).
The composition of the textile fibers varies, depending on the processed clothing stream.
Since it contains recycled content, a uniform fiber distribution cannot be guaranteed.

Dimensions:
The Rezign® Veneer has a gross size of 3050x1350 mm with a thickness of 0,8 mm.
The nett dimension is 3050x1300 mm.



Nett size of the Rezign® Veneer:



REZIGN®

Colour range


DENIM


ARMY


FLAX


COFFEEBAGS


SUITS


WHITE DENIM

Shipment

The veneer will be shipped with the gross size as rolls in a box. Six veneers fit one box. Horizontal transport on pallets is also possible on request.

REZIGN®


ONE VENEER
CONSISTS OF
4 PAIRS OF
JEANS

Rezign® Veneer: Process instructions

The material is suitable for use as a veneer and can be processed on regular wood core materials such as chipboard, MDF and plywood. The material is best cut using a solid carbide saw blade ø 350 with 108 teeth (alternate teeth).

The veneer can be glued with a waterproof white wood glue, spray adhesive, or PUR hot melt system. It can be processed in a standard flat press or multi-daylight press.

When glueing Rezign veneer to a wood-like core material and using white wood glue in a cold static flat press, the recommended press pressure with a closing time of at least 30 minutes should be followed. Edge strips can be cut from the loose material and processed with standard edge banding machines. Note: when applying edge strips using PUR bonding, use Jowat primer for HPL edge strips 406.28. For hot-air edge banders, the use of suitable ABS or PP edge bands is possible.

When used for desks or worktops, it is recommended to prime the core material or Rezign veneer (Jowat primer for HPL edge strips 406.28) for better edge bonding. When applying the edges, use a PKD diamond router bit for edge routing.

Finish:

The Rezign veneer is finished with a biological film layer. This layer is splash-proof and can be used for applications similar to regular HPL or veneers. However, in wet environments, such as a countertop, we do not recommend using the product without protection. After prolonged exposure to moisture, the fibers may absorb moisture. If you wish to finish the material, we recommend using a standard clear lacquer, such as PUR or Hydro lacquers, or a water-based lacquer like Skylt.

[http://www.rigostep-online.nl/wp-content/uploads/2014/09/Rigostep-Skylt-Titanium.pdf]

CNC CUTTING

The benefit of a computer-controlled cutting process is that the shapes and patterns are very detailed. CNC can be used to cut the veneer straight, but it also offers the option to cut angles. These options of cutting create a high degree of design freedom.

DIE CUTTING

Die-cutting is suitable for large-scale productions with the Rezign® Veneer with an equal recess. However, it requires a cutting jig and is therefore not suitable for low production volume.

REZIGN®

SAWING

Sawing the Rezign® Veneer is very fast and straightforward. However, the veneer is very flexible and can be raised by vibration. We recommend therefore to fasten the veneer with a clamp.

LASER CUTTING

The advantage of laser cutting is that it is very precise. However, due to the heat of the laser, the edges can be hardened and discoloured.

COMPRESSION MOLDING

Compression molding is the perfect method to design two- and three-dimensional shapes. Please note that with this method it is likely for the Rezign® Veneer to pleat.

THERMOFORMING

Thermoforming is suitable to design two- and three-dimensional useable products. When heating the Rezign® Veneer please be aware that the forming temperature must not be higher than 120°C.

GLUE & EDGE BANDING

The veneer can be glued to various wood panels. For sustainable glues, we recommend Circuwall Glue, Niaga Glue. But Standard D3 and spray glue are possible as well. For the panels we suggest, for example, Greengridz, Ecor, MDF, Chipwood etcetera. This method is perfect for panels, doors, tabletops or any other products with a solid look. For the edge banding, we recommend using a standard edge banding machine.

Please note: when pressing in order to attach the veneer to the panel, please be aware that the heat must not be higher than 50°C.

Product information

Different color results may arise from various textile batches. Imperfections in the material are due to the recycling process, making it impossible to fully predict the final color outcome. A deviation of up to 5%, resulting from other colors in the recycling process, can occur. The size of a textile fiber in a different color should be no larger than 3x3 cm.

Water resistance

The veneer is made of recycled textiles and biological fibres in combination with a biodegradable matrix. It is splash-proof, however, it is not water-resistant.

Cleaning

For the cleaning of the surfaces, use light-moist cotton or microfibre cloth. Then carefully wipe off and rub with a clean dry cotton cloth. Or make use of a feather whisper against dust-gathering. To clean a specific stain we recommend intervening immediately and using an organic solvent (ex. trichloroethylene). Do not use abrasive sponges as they may damage the product's surface. Avoid using acidic products, solvents, and products containing ammonia. Periodic and correct maintenance allows the product to keep its original aspect and lengthen the duration of its performance.

Law provisions

This product card complies with the provisions of the law by decree 206/2005 (Consumer Code) and with the corresponding Ministerial Decree nr.10. It complies also with memorandum nr. 1 dtd. 03.08.2004 "Instructions to fill in and distribute the product card of wooden products and wood and furniture sector". This is part of the product and must be delivered to the final customer. Also, the general condition is on application to this product, you can find them on www.planqproducts.com

Warning

Do not use different cleaning products from the ones mentioned above. Do not improperly use the product. Do not place hot objects on it, sit on the back, stand on it, or use the product as a ladder. Once disused, please make sure this product is disposed of in an environment-friendly way.

REZIGN® BY PLANQ B.V. IS NOT LIABLE FOR ANY DAMAGE TO PROPERTY OR PERSONS CAUSED BY AN IMPROPER USE OF THIS PRODUCT.

Properties

Glossiness	Matte	**Fire resistance**	Unknown
Translucence	0%	**UV resistance**	Moderate
Structure	Closed	**Weather resistance**	Moderate
Texture	Smooth	**Scratch resistance**	Moderate
Hardness	Hard	**Weight**	Light
Temperature	Medium	**Chemical resistance**	Moderate
Acoustics	Moderate	**Renewable**	Yes
Odour	None		

Performance properties of Rezign® Veneer tested in Denim

Property	Norm	Result	Unit
Thickness		1	mm
Density	DIN EN ISO 1183 (A)	1,16	g/cm³
Tensile stiffness (E-modulus)	ISO 527	1,7	GPa
Tensile strength Rm	ISO 527	35	MPa
Elongation at break ε B	ISO 527	2,5	%
Flexural stiffness (E-modulus)	ISO 14125	2,3	GPa
Flexural strength	ISO 14125	44	MPa
Elongation ε at fM	ISO 14125	16	mm
Puncture impact – Maximum force (23°C)	DIN EN ISO 6603	276	N
Puncture impact - (23°C) "Durchstoss-Arbeit"	DIN EN ISO 6603	0,47	J
Puncture impact - "Durchstoss-Gesamtenergie"	DIN EN ISO 6603	2,16	J
Abrasion resistance	ISO 9352		
	Average abrasion	64,55	Mg
Water absorption	DIN EN ISO 62	5,1	%
Boiling water resistance – change of mass	ISO 4586 T7	12,02	%
Boiling water resistance – change of thickness	ISO 4586 T7	7,89	%

*al data based on tests on article SPBA0001, colour 0000 natural

Disclaimer

The information is presented in good faith, but no warranty, express or implied, is given. Please also note that the Rezign® Veneer consists of natural materials and recycled materials, properties of which may show changes. This is intended merely as an information resource to facilitate compliance with intended applications. While Rezign B.V. has attempted to be as accurate as possible in compiling this datasheet, distributors and users of this list should be aware that this list may contain unintended errors or omissions and may not be completely up to date. This list will not be considered controlling.

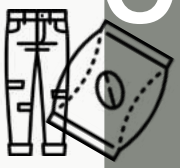
PRODUCTION STEPS
CUSTOM TEXTILES

CIRCULAR INTERIORS

FROM TEXTILE WASTE TO SUSTAINABLE SURFACES

FASE 0

01



INVENTORY

Inventory and examination of the composition of the textiles and materials.

FASE 1

04

>500KG

CERTIFIED SHREDDING

To shred all the textiles, we need at least 1500 kg of old clothing. After 4 weeks the fibres are ready to be spun.

07

50/50

SPINNING

in week 7 the fibres are spun together in combination with recycled or biobased plastics into sheets on a roll.

09

PROTOTYPING & TESTING

The materials and fibres got tested to determine the correct composition.

FASE 2

14

PRODUCTION & TRANSPORT

The textile fibres got pressed into contemporary design products ready for its next life.

end-of life

FASE 3

CLOSING THE LOOP

It is possible for the Rezign® Veneer to re-heat and to re-design. In order to ensure designs last forever.

WITH JUST ONE CHAIR MADE FROM RE-CYCLED DENIM WE SAVE 16.275 LITERS OF DRINKING WATER.

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