# **Vilt:** Vlas/textiel

Korteland
In & Outdoor signing

## Toepassingen

- Wandbekleding
- Teksten
- Interieurbekleding
- Logo's
- Akoestiekverbetering
- Beprintbaar
- Plafondbekleding

Rezign akoestische panelen bieden de ideale oplossing voor moderne werkomgevingen, met een verfijnd ontwerp, uitstekende geluidsabsorptie en een werkelijk duurzame aanpak. Naast hun akoestische voordelen helpen vlas en jute op natuurlijke wijze de luchtvochtigheid te reguleren, wat bijdraagt aan een evenwichtig en comfortabel binnenklimaat.

- **PVC vrij**
- **Bio based**
- **Recyclebaar**
- **Akoestisch dempend**

\+ **Beprintbaar**

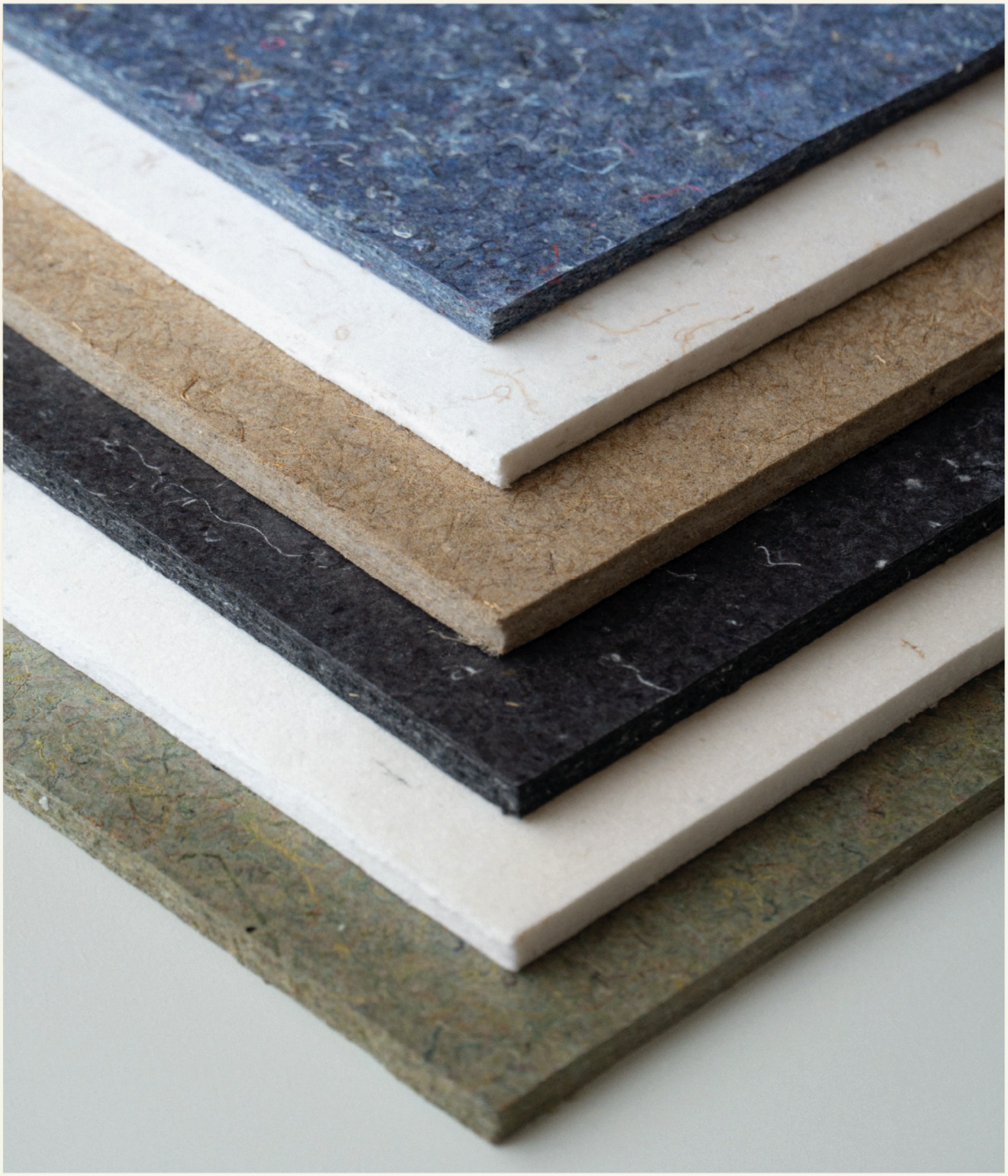
\+ **Zachte look en feel**

− **Beperkt kleuren gamma**

Aw-waarden
10mm = Aw 0,25.
Op spouw van 50 mm Aw 0,60

*zie onderliggende data sheets

**Brandcertificaat:** *Nog niet beschikbaar. (waarschijnlijk klasse B)*



# Acoustics

**Date** 2026

# General information

Rezign Acoustic Panels offer the ideal solution for contemporary work environments, combining refined design, excellent sound absorption, and a truly sustainable approach.

Crafted from renewable flax fibers or made from recycled textiles such as post-consumer clothing in line with our standard Rezign materials, these circular panels improve communication and focus by reducing noise, echo, and other distractions.

Beyond their acoustic benefits, flax and jute naturally helps regulate humidity, contributing to a balanced and comfortable indoor climate.

Available in a variety of sizes, finishes, and optional surface patterns, Rezign Acoustic Panels can be fully customized whether for a complete acoustic wall installation or a single feature panel in a smaller space. The standard Rezign flax panels feature a smooth, pattern-free surface and can be custom cut to size upon request.

## Composition

| | |
|---|---|
| **Natural fibers** | 50% |
| **Recycled components** | 50% biobased fibers |

## Dimensions

| | |
|---|---|
| **Dimensions** | 3070x1020 mm, standard<br>3070x2070 mm, on request |
| **Thickness** | 10 mm |
| **Weight** | 2.000 g/m2 |
| **Lead time** | 3-4 weeks |

## Acoustic performance

| Thickness [mm] | Wall distance [mm] | Practical sound absorption coefficient $\alpha_p$ | | | | | | $\alpha_w$ | Absorber classification |
|---|---|---|---|---|---|---|---|---|---|
| | | 125 Hz | 250 Hz | 500 Hz | 1000 Hz | 2000 Hz | 4000 Hz | | |
| 10 | 0 | 0.00 | 0.05 | 0.15 | 0.45 | 0.75 | 0.95 | 0.25 | E |
| 10 | 48 | 0.10 | 0.30 | 0.65 | 0.95 | 0.95 | 0.90 | 0.60 | C |
| 10 | 200 | 0.40 | 0.80 | 0.90 | 0.80 | 0.90 | 0.95 | 0.90 | A |

## Fire resistancy

Certificate available on request.

Fire classification acc. EN 13501-1 -E-

Fire Class B available on request

## Processing

Our acoustics panels can be processed using standard woodworking and soft-material techniques. We recommend cutting the material (for example with a CNC knife or sharp blade) to achieve clean and precise edges.

Sawing is possible, but it may result in rougher or less clean edges.

The material is easy to drill, mill, and shape without splintering. Edges can be left raw or finished for a cleaner look. The material can also be thermoformed using heat and pressure to create curved or 3D shapes. It is lightweight, durable, and suitable for both functional and decorative applications.

# Impact

The environmental impact is calculated using a Life Cycle Assessment (LCA) approach. Incineration refers to the end-of-life scenario in which textile waste is burned, resulting in $CO_2$ emissions and air pollutants such as nitrogen oxides, particulate matter and other harmful substances. Avoided $CO_2$ represents the emissions that are prevented by diverting textile waste from incineration and reusing it as a material input. The Rezign production impact reflects the embodied environmental footprint of producing the material, including raw material processing, energy use and manufacturing (A1–A3). Together, these elements provide a view of both the environmental burden of conventional waste treatment and the benefits of circular material production.

## 1KG Textile
wasted

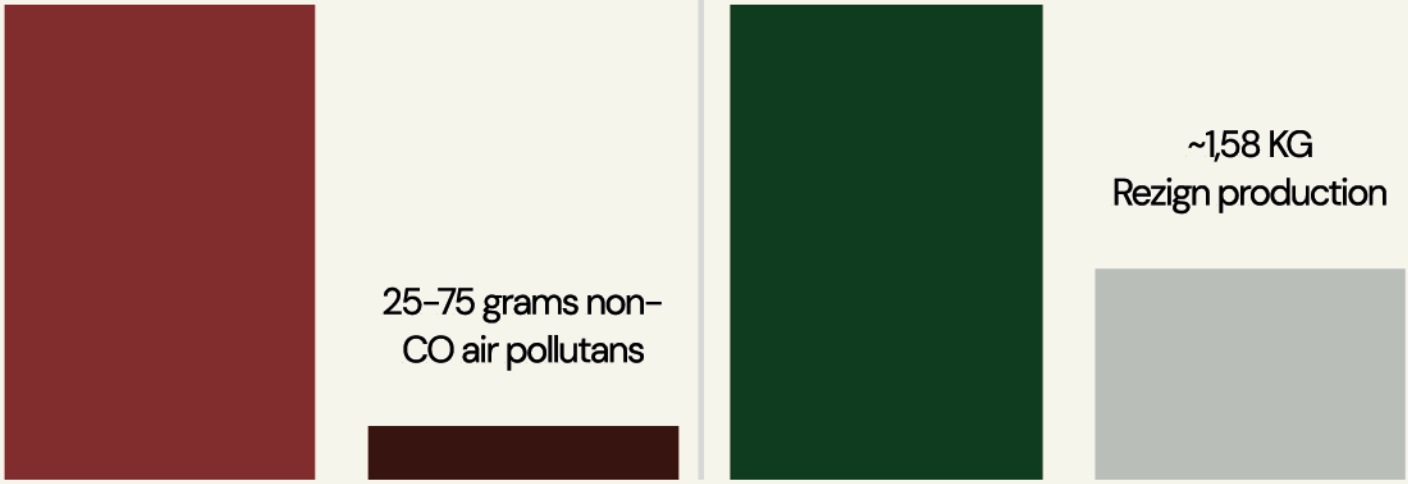
1.63-2.29 KG
$CO_2$ incineration

25-75 grams non-
CO air pollutans

## 1KG Textile
processed into Rezign products

1.63-2.29KG $CO_2$
avoided

~1,58 KG
Rezign production



Incineration of 1 kg of mixed cotton–polyester textile releases approximately 25–75 grams of non-CO air pollutants, including carbon monoxide, nitrogen oxides, sulphur dioxide, volatile organic compounds, particulate matter, and trace toxic compounds. The associated CO emissions depend on the fibre composition, ranging from approximately 1.63 kg CO per kg textile for 100% cotton to 2.29 kg CO per kg textile for 100% polyester.

# Environmental impact

## Acoustic / 1 $m^2$ (estimation)

The environmental impact of Rezign products is assessed on a cradle-to-gate basis (modules A1–A3: raw material supply, transport, manufacturing). Data for Rezign Veneer is based on a published EPD (Planq, 2024). Values for Rezign Acoustic Panels are indicative, as production steps are similar to Veneer but with approximately double fibre grammage. Rezign Solid follows the same process as Veneer, with minor variation depending on thickness

| | A1 | A2 | A3 | A1 - A3 total | notes |
|---|---|---|---|---|---|
| **GWP – Fossil (kg $CO_2$-eq/$m^2$)** | ~6.0 | ~0.1 | ~1.0 | ~7.1 | Based on Planq EPD (2024) |
| **GWP – Fossil (kg $CO_2$-eq/$m^2$, with PV electricity for pressing)** | ~6.0 | ~0.1 | ~0.2 | ~6.1-6.3 [1] | Switched from NL grid (0.35–0.45 kg $CO_2$/kWh) to PV (~0.05 kg $CO_2$/kWh) |
| **Avoided impact (kg $CO_2$-eq/$m^2$)** | | | | ~2.8–4.2 | Avoided textile incineration + embodied bioplastic |

1. According to the EPD of Rezign Veneer (Planq, 2024), cradle-to-gate impact equals ~4.09 kg $CO_2$-eq/$m^2$. With renewable electricity in pressing, A1–A3 reduces to ~2.85–3.16 kg $CO_2$-eq/$m^2$. For Acoustic Panels, A1 is estimated at ~2× Veneer due to higher fibre mass; A2 and A3 are assumed equal.

# Circularity & Recyclability

All Rezign materials are designed with circularity at their core.

Rezign offers custom circular production in collaboration with clients. Textile waste from organisations – such as uniforms, workwear or post-consumer textiles – can be upcycled into bespoke Rezign materials. These project-specific sheets not only close the loop environmentally but also add storytelling value: clients see their own discarded textiles transformed into durable interior elements and furniture.
This combination of zero production waste, closed-loop recyclability and client-specific take-back models makes Rezign a frontrunner in circular material innovation.

# Indoor Climate & Health

All Rezign materials are produced without added formaldehyde-based resins, ensuring safer indoor air quality and compliance with healthy building standards. This makes them suitable for use in environments where low emissions and safe material chemistry are essential, such as offices, schools and public interiors.
For the Rezign Acoustic Panels (flax-based), the natural flax fibres can give off a subtle, natural odour directly after installation. This is comparable to the smell of raw natural fibres and is not harmful. The odour gradually dissipates within normal indoor conditions and leaves behind a neutral indoor environment.

The flax fibres also provide an additional benefit: they act as a natural humidity regulator. By absorbing and releasing moisture depending on the surrounding air, they help to stabilise indoor humidity levels and contribute to healthier, more comfortable interior climates.
Together, these characteristics mean that Rezign products not only support circularity and low environmental impact, but also promote healthy and comfortable indoor spaces.