



# Interwoven with nature

Sustainability brochure

**ztec2**<sup>®</sup>  
high tech flooring

— 2023 - 2024 —





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2TEC2 Magellan - Hybrid collection

## High tech, high design

2TEC2 is a 100% Belgian company devoted to designing and producing **recyclable high-tech woven flooring**.

Focused on weaving aesthetic tiles and rolls for the project market, the company aims for a **superior performance** in quality, functionality and **durability**.



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2TEC2 Serpentine - Strata collection

*"Our aim is to deliver outstanding products. We are committed to boost the sustainability of our flooring and your buildings."*





This document clarifies our concrete commitment and steps towards more sustainable and responsible flooring.

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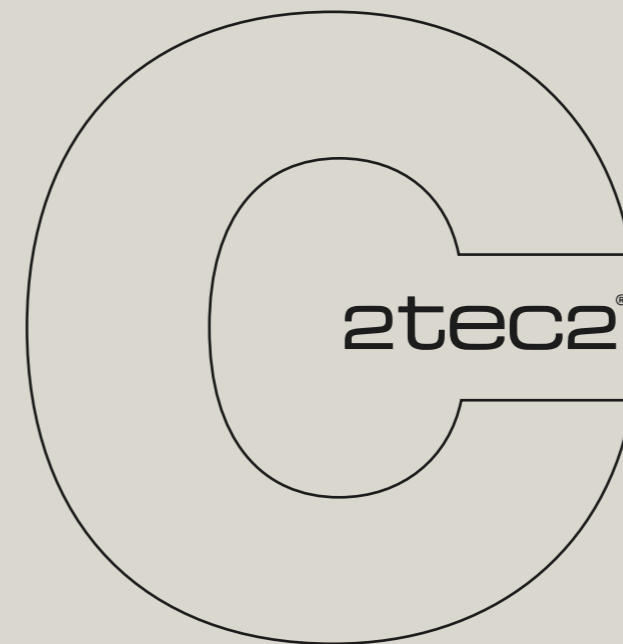
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# The 3 C's of 2TEC2

Our sustainability pillars and our vision are centred around:



## Care

Care for the planet & environment  
Care for people & health

## Circularity

Circularity  
Recycling  
Re-use

## Compliance

Contributing to building ratings  
Certificates & labels



Care  
Circularity  
Compliance



2tec2<sup>®</sup>

Care





## We care for the planet & environment

Our two main strategies for responsible production are to continuously and progressively:

- decrease CO<sub>2</sub> emissions in our operations
- reduce our use of (non-renewable) fossil raw material



We avoid harmful emissions to and from suppliers of raw and semifinished materials.

2TEC2 is 100% locally designed and produced on one single site in Belgium. This significantly **reduces our CO<sub>2</sub> emissions from transport**. This integration includes our own yarn extrusion, bobbinning, weaving, backing, cutting, assembling, packing and storage facility.



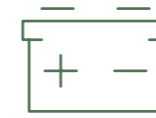
We are able to avoid almost 820 tons of greenhouse gas emissions every year.

We have 3.154 photovoltaic panels on our buildings, to capture as much **renewable solar energy** as possible for our operations. Green energy currently makes up a 74% share of all energy demand at our site.

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2TEC2 production site with solar panels



A further increase of renewable energy through a large battery installation.

A giant **battery energy storage system (BESS)** has been built at our own premises. An important investment to increase our share of renewable energy for our activities through the storage and optimized use of solar power.



Optimized closed circuit energy re-use.

- A **heat recovery system** operates in our production, to re-use already present energy as much as possible rather than utilising new sources of energy.
- 2TEC2 runs a **closed water cooling system** in production, in order to minimise water consumption.



2TEC2 closed water cooling system

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## Good governance

To ensure excellent progress on our sustainability strategy and meet our goals, we have established a 2TEC2 **multi-disciplinary sustainability work group**. Every quarter our top management evaluates sustainability improvement, decides on any necessary initiatives and carefully plans their budget, resources and timing.

With circularity, resource recovery and recycling being such important priorities for 2TEC2, we have appointed a **Waste Manager**. His task is to ensure that waste reduction actions are completed throughout our facilities.

We attach great importance to making sure that our material management, manufacturing operations and final products will comply with all relevant legal, local and sectoral requirements for safety, quality and the environment. This is implemented through our **strict internal control processes**.







## Our commitment to the UN SDGs

2TEC2 fully subscribes to the **United Nations Sustainable Development Goals**, which are an excellent blueprint for a better and more sustainable future for our planet.

Designed to address a wide range of key societal challenges such as climate change, poverty, threat to biodiversity, poor health and access to education, the SDGs are a call for governments, organisations, companies and civil society to take action.

With its products and collaborations across the value chain, 2TEC2 is **committed to contributing positively** to the following six Sustainable Development Goals:



2TEC2 features easy cleanability without much use of chemical detergents.


## SUSTAINABLE DEVELOPMENT GOALS

**6 CLEAN WATER AND SANITATION**




Integrated and durable use of water in the 2TEC2 production facilities.  
In daily use of 2TEC2, minimal use of water for cleaning and avoiding chemical detergents.

**8 DECENT WORK AND ECONOMIC GROWTH**




Contributing to economic growth through our worldwide 2TEC2 distribution, with attention to sustainability, equality, diversity, ethics and positive work circumstances.

**9 INDUSTRY, INNOVATION AND INFRASTRUCTURE**




Ensuring a maximum focus on sustainability in our production site, working towards a low carbon footprint and minimising waste in materials and energy use.  
Actively contributing to a better industry and infrastructure through innovations with impact on climate, people, health and society.

**11 SUSTAINABLE CITIES AND COMMUNITIES**



Making cities and living in cities more safe, healthy and sustainable through performant 2TEC2 building products, with proof of excellence through certifications and labels.

**12 RESPONSIBLE CONSUMPTION AND PRODUCTION**



Promoting and facilitating responsible and durable consumption patterns: 2TEC2 is a long-life flooring, easy to re-use or re-place, contributing to comfort, health and safety, and is fully recyclable. 2TEC2 is produced in Belgium, in safe and correct labour circumstances.

**15 LIFE ON LAND**



Preserving ecosystems on land, preserving the environment.  
Actively reducing our footprint by conscious use of raw materials, renewable energy and recycling processes.



## We care for people & health

2TEC2 designs and produces floors, for buildings and spaces where people spend up to 80% of their lifetime indoors. **We care for your health, safety and well-being.**



### No phthalates nor heavy metals.

2TEC2 complies with the most strict norms in its field, to make sure our customers are not exposed to hazardous chemicals. Our floor tiles and rolls **do not contain any phthalates or heavy metals.**

2TEC2 has a wide range of **official certifications**, performance reports and documentation labels. Our customers will find in these documents full transparency and detailed information on both the content and origins of our flooring materials.

More information on page 28, **“Compliance and certifications”**.



### Excellent acoustic performance.

Acoustics play an important role in people's **well-being and comfort** in a room, especially in an office or hospitality space.

- Our acoustic backings significantly reduce the decibels produced in adjacent rooms by **19dB or even more.**
- They **cut down footstep noise** by no less than 70dB, meaning they provide almost the same level of noise reduction as carpet flooring.
- Sound absorption in the room is 0.15  $\alpha_w$ .



### Mental well-being and rest, beautiful aesthetics and outstanding designs.

A beautiful environment **makes people happy.** Our flooring contributes actively to healthy buildings and the well-being of employees or customers by creating **pleasant, creative and comfortable spaces.** A spotless and tidy environment boosts morale.



### Hygiene & cleanability.

Thanks to our unique woven structure, 2TEC2 flooring solutions capture dirt particles, holding them until the next cleaning round, contributing to **cleaner air** in the room.

2TEC2 floors are very easy to clean, which means your personal surroundings remain spotless and healthy. For a day-to-day maintenance simply vacuum clean or spot clean with a damp cloth or a small brush and mostly water. This way, you **avoid using harmful chemical cleaning products.** It saves you time and preserves the planet's precious water supply.



Our flooring is ideal for healthcare spaces, hospitality settings and workspaces.



Care  
Circularity  
Compliance

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**C**ircularity





# Circularity & recyclability



## Our journey towards a circular future





Our goal is to reach 0% virgin fossil raw material and to be fully recyclable

How can we achieve this?

- Bio-based materials
- Recycled contents
- Fully recyclable product
- Own recycling plant

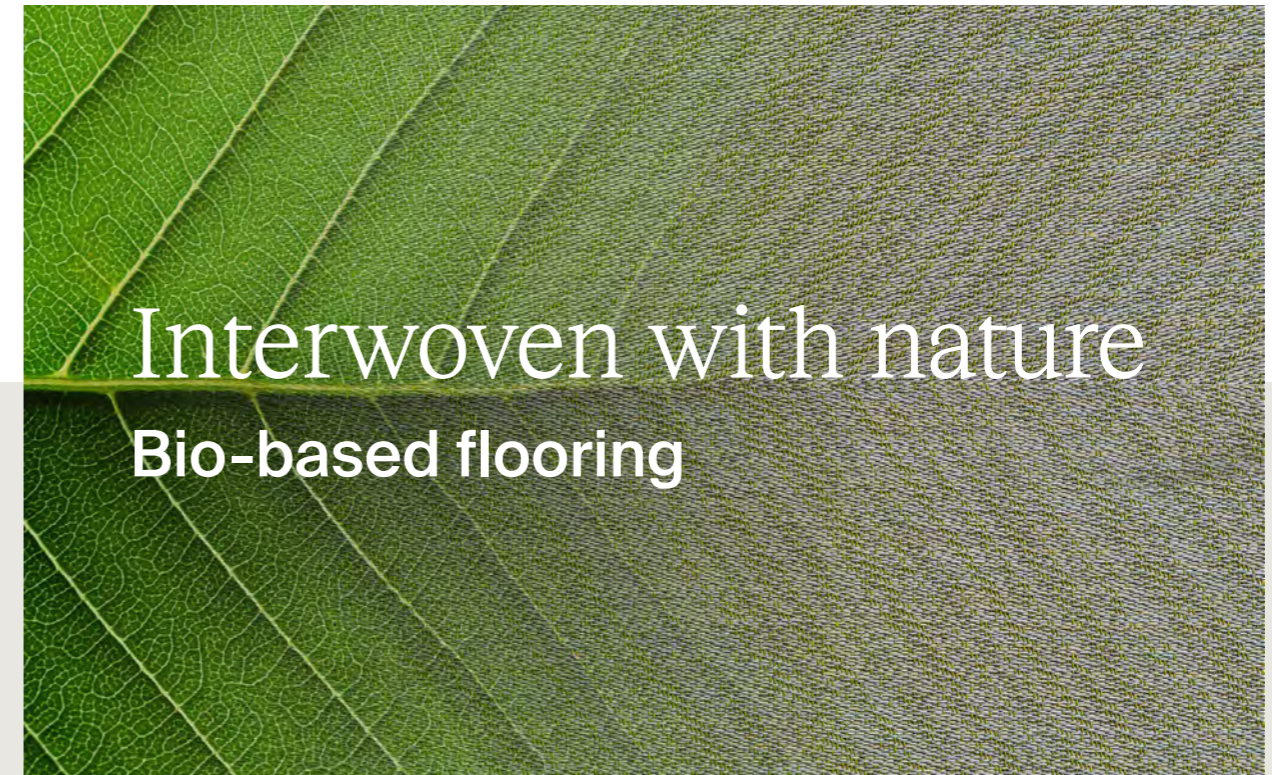


Our first 2TEC2 collection with Bio-based content.

## Bio-based materials in our flooring

We are proud to announce a new development since 2023, as part of our pioneering journey.

- We created a Bio-based vinyl compound which is used in the toplayer of our woven flooring.
- Thanks to this innovation, the woven top layer of collections with this feature consists of **45% more renewable Bio-based content**, meaning this reduces the consumption of virgin fossil materials by 45%.



### What is Bio-based?

Bio-based products are **derived from materials of biological origin** such as plants, excluding materials coming from geological formations and fossilised materials.

Virgin fossil raw materials are a finite resource, whereas Bio-based ones are **renewable**. The use of Bio-based products leads to a reduction of CO<sub>2</sub> emissions, less toxic waste, and a decrease in energy and water consumption during production processes. In short, choosing Bio-based materials is a step in the right direction towards a more sustainable future.

In the near future, a fully Bio-based economy will replace all fossil raw materials with renewable raw materials, i.e. 'biomass'. This is not yet feasible, due to insufficient availability of biomass for now.

As soon as sufficient plant-based raw materials will become available, 2TEC2 will continue its shift to a fully Bio-based economy, this without jeopardizing the food chain.



## Recycled PET content

We save from landfill the equivalent of 15.000 PET bottles for every 1000m<sup>2</sup> of 2TEC2 flooring.

Over the last 5 years, we have been increasing the **PET recycled contents** in the felt underlayer of our products from 6% to 70%. We continue our R&D focus to increase this share even more.



## Circularity & recyclability

All 2TEC2 tiles, rolls and planks are 100% recyclable.

All materials introduced in our circular production cycle are meticulously quality-checked for composition and performance.

2TEC2 is designed and produced to be recycled and **to regenerate new 2TEC2 flooring again and again** - without losing strength.

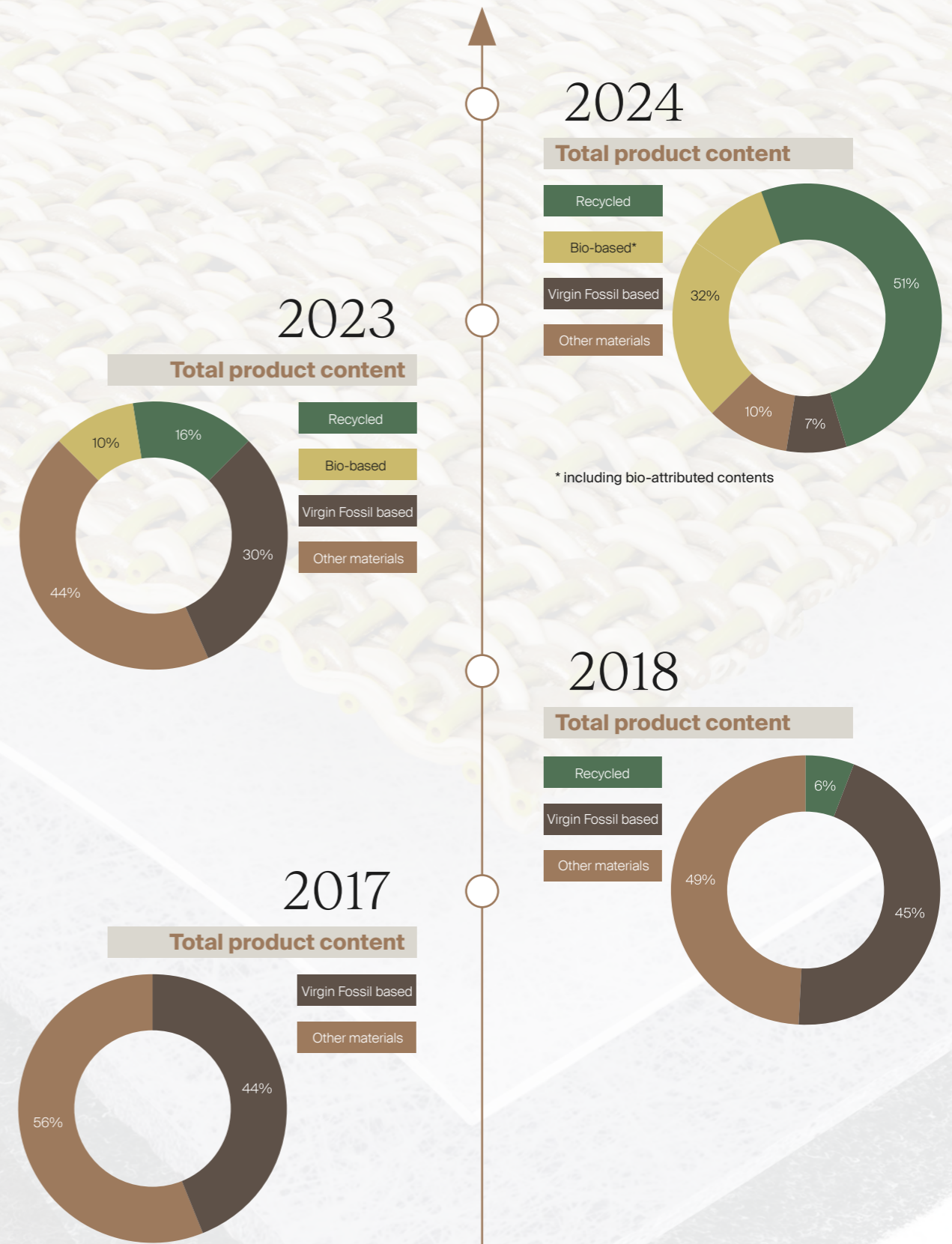


## Durability

2TEC2 material has always been strong and durable. Vinyl or PVC are **highly robust and proven materials** to utilise in buildings. Fit for commercial use Class 33, resistant to office chair wheels' pressure and UV-resistant, there is literally no need to replace 2TEC2 floors for the next 15 years, when used in correct conditions. This long-term use makes 2TEC2 a truly **responsible floor choice**.

At end of life, 2TEC2 can be perfectly recycled thanks to this high quality.

## Evolution of recycled content & renewable resources in 2TEC2





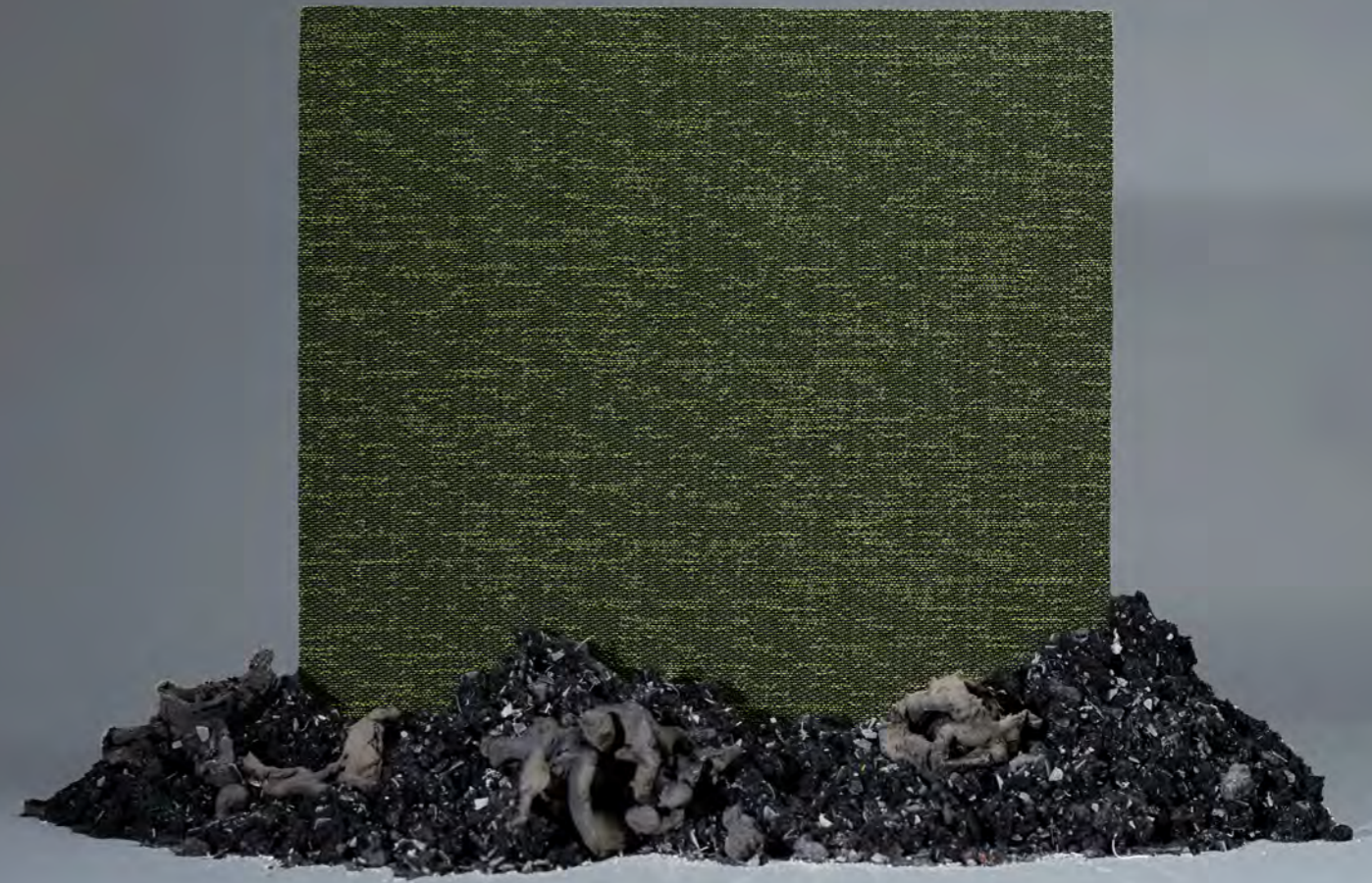
# Waste stream management & Resource Recovery

We sort and organise all manufacturing waste, to ensure the recycling process is optimal. Yarn waste, end-of-bobbin yarns, weave excess, cut waste, samples, second-quality tiles and all other leftover materials are meticulously collected – so they can be sent to our new recycling facility. We call these **recyclable factory materials** 'pre-consumer waste'.

Our recycling facility can shred different types of waste, introduce these shredded parts into our production process and generate new tiles or flooring.

We save and **re-use** our 2TEC2 (pre-) consumer waste for circular re-production.

Leftover yarns are furthermore utilised by our sister company Limited Edition to create outdoor rugs.



Circularity: new tiles are generated from recovered resources from waste streams



2TEC2 waste before being shredded into new raw material

## Interwoven with a circular future

### CIRCULARITY

2TEC2 is designed and produced to regenerate new 2TEC2 flooring again and again.



### RECYCLING

All manufacturing waste and 2TEC2 flooring at end of life is being recycled in our own recycling plant.

### RE-USE

All 2TEC2 recycled material is being entirely re-used in our production facility. 2TEC2 flooring is manufactured with more than 50% recycled content.



# Our new recycling plant

## Towards a fully circular ecosystem

Built in 2023, just a few kilometres from our production site, this new facility will use production waste and **convert it into new, strong and attractive tiles**. There will be no change on the visual aspect, stability, performance, durability or other features of our flooring.

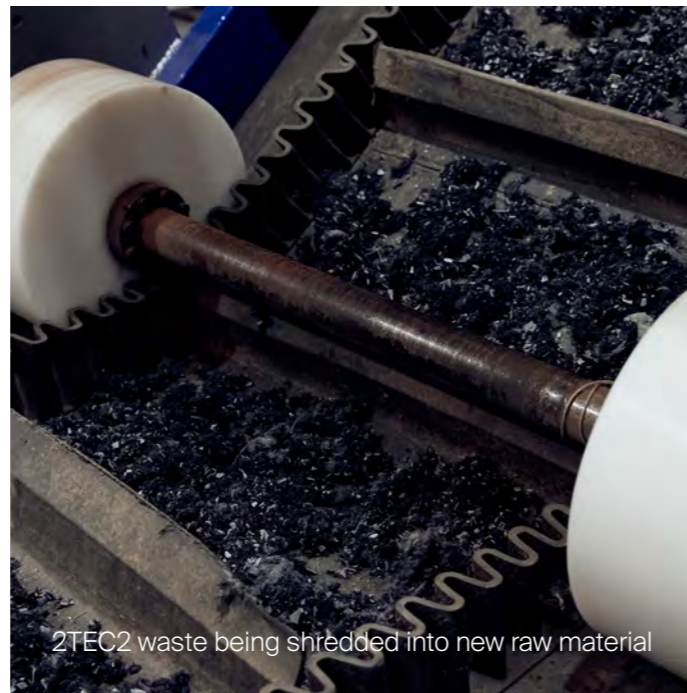
2TEC2 new tiles will notably include **more than 50% recycled content**.

2TEC2 is committed to making your floors more sustainable. As **pioneers** in this field, we see an exciting challenge in contributing to the preservation of the planet's finite resources. We continue to work on minimising our consumption of virgin materials.

This is done in our new in-house recycling plant in Belgium, ensuring a circularity approach within our own operations.

## Future Take Back Programme

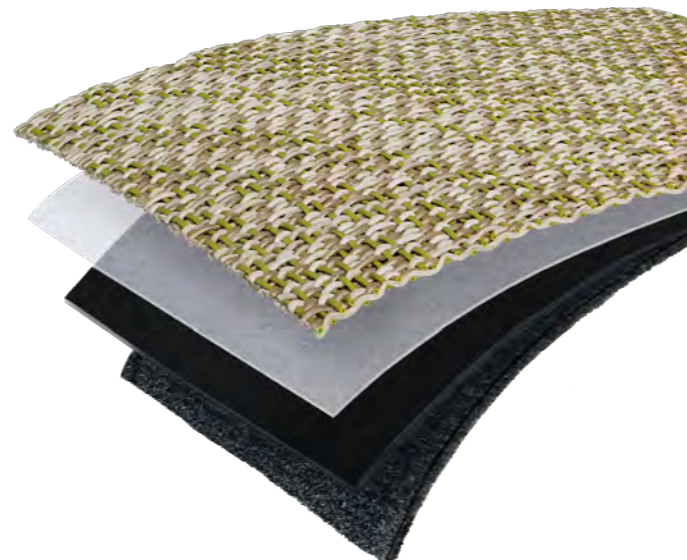
It is our ambition to also include Post-consumer waste/ used tiles into our approach. This refers to the materials and tiles that have been used in the market. We will be developing this programme in the upcoming years.



2TEC2 waste being shredded into new raw material



2TEC2 shredded materials, the base for new tiles



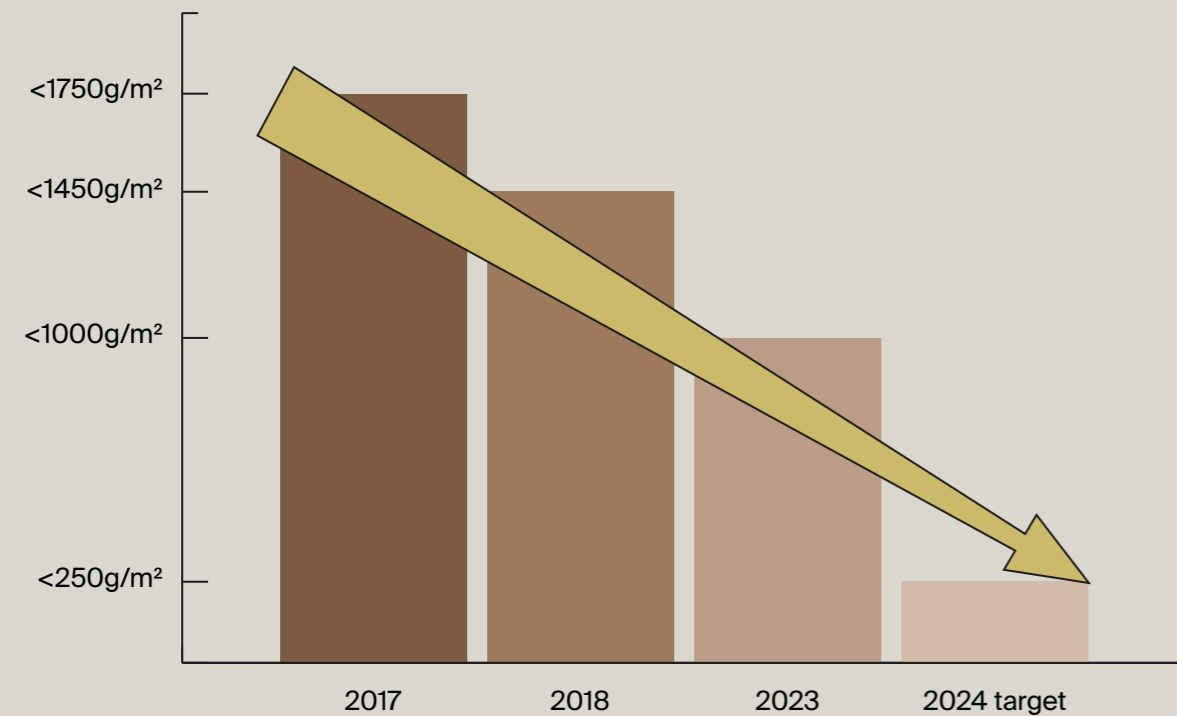
New 2TEC2 tile material, re-engineered with contents coming from waste.



2TEC2 in-house recycling plant: tile and roll shredder



## Evolution of virgin Fossil Based Resources in 2TEC2 (in g/m<sup>2</sup>)



We continue on our ambitious path to **reduce the carbon footprint** of our products by:

- Further increasing our bio-based material content, thus reducing the weight of fossil based virgin material used in 2TEC2
- Growing the recycled material in our products

Over 5 years' time, our sustainability efforts will have brought the amount of virgin fossil based PVC down to barely 250g/m<sup>2</sup> targeted in 2024.

Compared to 2017, this is **7 times less** virgin fossil based material.





Care  
Circularity  
Compliance

2tec2<sup>®</sup>

**C**ompliance





# Compliance & certifications

Proof of our excellence

## We contribute to healthy buildings

2TEC2 understands the importance of providing credible and transparent evidence of our commitments and actions.

Our international certification experts are tasked with documenting test results, accurate product performance and composition information.

We comply with a series of respected international certificates and labels, to show the world how much we care about product quality, human health and the environment.



### No hazardous substances: a no-risk floor solution!

We comply with the necessary rules and regulations applicable to our sector, our products, and the materials we are using, such as the EU chemicals legislation, **REACH**. This regulation was adopted in 2007 to improve the protection of human health, and the environment, from the potential risks posed by chemicals.



### An all-comprehensive transparent and safe flooring formula in your building, adding to more healthy spaces

To help our customers achieve certification with the internationally renowned building certification schemes **LEED** and **BREEAM**, 2TEC2 can contribute credits (up to 16 for BREEAM and 20 for LEED). These credits reflect contributions to impact categories including health & well-being, energy, responsible choice of materials, acoustics, the product's life cycle environmental impacts and waste management. This in turn provides a guarantee to our customers that buildings using our flooring solutions are as healthy and non-harmful as possible.

## BREEAM (v6)

Building certificate 2TEC2 can contribute up to **16 credits** in total

CATEGORY	ITEM	MAX CREDITS
Health & wellbeing (HEA)	Visual comfort	Up to 1 credit
	Indoor Air Quality	Up to 3 credits
	Heat	Up to 1 credit
	Acoustics	Up to 2 credits
Management (MAN)	Lifecycle	Up to 1 credit
	Commissioning & maintenance	Up to 1 credit
Energy (ENE)	Minimal energy requirements, maximum renewability	Up to 2 credits
Materials (MAT)	Lifecycle	Up to 1 credit
	Responsible choice of materials	Up to 1 credit
Waste (WST)	Preventing packaging waste	Up to 1 credit
	Client guidance and support	Up to 1 credit
	Functional adaptability	Up to 1 credit

## LEED (v4.1)

Building certificate 2TEC2 can contribute up to **20 credits** in total

CATEGORY	ITEM	MAX CREDITS
Materials & resources (MR)	Interiors life cycle impact reduction	Up to 5 credits
	Environmental Product Declarations	Up to 1 credit
	Sourcing of raw materials	Up to 2 credits
	Material Ingredients	Up to 2 credits
	Construction & demolition waste management	Up to 2 credits
Indoor environmental Quality (EQ)	Low-emitting materials	Up to 3 credits
	Indoor air quality assessment	Up to 3 credits
	Acoustic performance	Up to 2 credits





### Putting health and well-being of people first in buildings

To contribute actively into how your building influences health, happiness and productivity of people, 2TEC2 can play an important role. The **WELL Building Standard™ version 2 (WELL v2™)** is a vehicle for buildings and organisations to deliver more thoughtful and intentional spaces that enhance human health and comfort. In the categories air, light, sound and materials, 2TEC2 can substantially add to the scores of your building: we can help you with 2 Preconditions and 10 Optimizations.

WELL (v2™) Building certificate 2TEC2 can contribute up to **2 Preconditions and 10 Optimizations**

CONCEPT	ISSUE	PRECONDITION/OPTIMISATIONS
AIR	A01 Air Quality	Precondition
	A14 microbe & mold control	Optimisation
LIGHT	L05 Daylight Design strategy	Optimisation
	L07 Visual Balance	Optimisation
SOUND	S04 Reverberation time	Optimisation
	S07 Impact Noise management	Optimisation
MATERIALS	X01 Material restrictions	Precondition
	X05 Enhanced material restrictions	Optimisation
	X06 VOC restrictions	Optimisation
	X07 Materials transparency	Optimisation
	X08 Materials Optimization	Optimisation
	X11 Cleaning products and protocols	Optimisation

## LRV

### Adding to your well-being by the right light

All 2TEC2 products have a **Light Reflectance Value (LRV)** for you to consult, indicating the level at which the floor will absorb or reflect light. This allows to make the right choice of hue for a maximum of visual comfort, depending if your space is exposed to a lot of sunlight or needs some extra brightness. This results into more comfort and well-being in your buildings.

## Certificates & Labels



### A material that enhances good indoor air quality

People typically spend 80% of their time indoors. It is therefore very important to create healthy air quality inside our working and living spaces. To support this, 2TEC2 products are qualified for **FloorScore** (healthy indoor air), **Indoor Air Comfort Gold** and **M1**. These labels certify that our products are very low in VOC (Volatile Organic Compounds) emissions. In other words, 2TEC2 flooring is safe to place in your space and contributes to a healthy air quality indoors.



### An environmentally and healthwise performing floor formula over time

**SundaHus** assesses all our products' materials and their properties, based on a number of health and environmental criteria. We have been awarded a 'B', the highest score for products containing PVC. SundaHus tracks our performance throughout the lifecycle of our customers' building - helping them to make environmentally conscious material choices.



### Transparency in our cradle-to-grave scoring

For further reassurance, we provide cradle-to-grave **Environmental Product Declarations (EPD)** for all our products. EPDs give details on the environmental impacts associated with the product, covering all phases of the product lifecycle, from raw material extraction to disposal. One example of the information contained in EPDs is the amount of greenhouse gas emissions for each square metre (kg CO<sub>2</sub> equivalent/m<sup>2</sup>).

*\*2TEC2 reserves the right for updates due to technical improvements on a continuous basis. Latest updates on [www.2tec2.com](http://www.2tec2.com) or reach out to your 2TEC2 contact.*





# Contact

Contact us for more information on our take on sustainability and our vision for making your floorings and buildings more durable.



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