

FLOORING

WITH A

GREEN

HEART

**READY
TO GO VINYL?**

**BEAU
FLOR[®]**
we decorate your floor



Be part of
the change!

01 LET'S GO **GREEN!**

Because we can	4
Let's do it together	6
A tailored sustainability model	8

03 MOVING FORWARD **STEP BY STEP**

Our sustainability promises	19
Pioneering with circularity	20

02 ROLLING INTO **A LIFECYCLE APPROACH**

Turning greenish into bright green	10
Raw materials	12
Production	14
Transport	15
Packaging	16
Installation & Use	16
End-of-life solutions	18

04 BEAUFLOR IN **CERTIFICATES**

LET'S GO GREEN!

BECAUSE WE CAN

We firmly believe that doing business responsibly and innovating with sustainable solutions is a must to stay on top of our field. But as one of the global industry leaders for cushion vinyl flooring, we also feel that it's our moral duty to contribute to a more sustainable world. Especially because we are in the position to make a big difference.

Uncountable square metres of flooring pass under our feet on a weekly basis. Strolling around the house, navigating the office, shopping in town ... we encounter floors everywhere. And Beauflor has a big piece of the pie, designing, producing and distributing large volumes of vinyl flooring to all corners of the world every year.

Well aware of our enormous social and environmental responsibility, we've integrated a sustainable approach into all aspects of our business - from deeply caring for our employees to offering a growing number of eco-friendly flooring solutions.

DO WELL
grow as
a business

DO GOOD
improve social
& environmental
impact

**BEAU
FLOR**
we decorate your floor



**We do
well
to do
good**

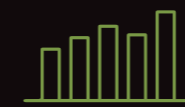
LET'S DO IT TOGETHER

Beauflor operates under the flag of Beaulieu International Group (B.I.G.), a Belgian global industrial group that specialises in polymers, engineered solutions and flooring solutions. Within the range of flooring solutions, Beauflor has become a worldwide reference for vinyl flooring.

Being part of a resilient group allows us to focus on what we do best: building long-term partnerships, creating 100%-customisable designs, offering strong digital services and supporting our customers with a down-to-earth attitude.



BEAULIEU INTERNATIONAL GROUP



Turnover 2020

1.7 billion euro

Active in
140 countries



Employees
4,700



Unique customers
16,000

Facilities

29 plants

20 offices



Cushion vinyl distribution

100+ million m² a year



Founded in
1959



Headquarters in
Waregem Belgium



Our shared DNA in 5 Is:

- Investing in the future
- Innovation-driven growth
- Intelligent diversification
- Intrapreneurial spirit
- Integrated workflows

A TAILORED SUSTAINABILITY MODEL

Sustainability is an integral part of Beauflor as well as B.I.G. and will gain even more importance in the years to come.

To continuously improve our performance when it comes to environmental, social, ethical and economical matters, we created our very own sustainability model. Why? Because we felt that a general framework, such as the UN's 17 Sustainable Development Goals, falls somewhat short of our own unique aspirations.

After carefully capturing the vision of our people, we translated their concerns and ambitions into 5 focus points, which are closely intertwined with our company DNA:

#1 We take responsibility for the environmental impacts generated in our operations.



water



energy



waste

#4 We take responsibility for our climate impact.



renewable energy



CO₂ emissions

#2 We value our employees and the people around us.



our workforce



local communities

#5 We act with integrity and value open communication.



communication plan



B.I.G. policies and guidelines

#3 We work towards a circular economy with the whole supply chain in mind.



content in products



packaging



conduct code for suppliers



circular solutions

Together for a human, collaborative and sincere future

ROLLING INTO A LIFECYCLE APPROACH

TURNING GREENISH INTO BRIGHT GREEN

We want to help consumers to reduce their ecological footprints, whether it's a family wanting to refurbish their home, a businessman planning to build new offices or a retail store looking to find an ideal mix between usability and sustainability. All our products aim to be green. But what exactly makes a product truly 'green'? The answer lies in lifecycle assessment.

Lifecycle assessment implies that everyone in the whole chain of a product's lifecycle, from cradle to grave, has a responsibility and a role to play. From the sourcing of raw materials to end-of-life solutions: every phase of our supply chain offers opportunities to protect the planet. It is our ambition to seize those opportunities to the fullest.

02



Full transparency

With EPD and FDES certificates, we provide independently verified and comparable data about the environmental impact of our products. This allows people to objectively evaluate the science-based results of our sustainability efforts. Water consumption, CO₂ emissions, waste management, ... numerous key environmental issues are addressed throughout the whole lifecycle.



A new opportunity with every step



STAGE 1 RAW MATERIALS



Every product lifecycle starts with the extraction and sourcing of raw materials. Two basic principles help us to pinpoint effective actions on this front. First, the less material needed, the better. We always try to optimise our products so that we only need a minimum of material to begin with. Our foaming project is a prime example. Second, for the materials we do need, we minimise our footprint.



Optimizing transport

We source our raw materials close to our manufacturing facilities. Moreover, through smart logistics, we limit deliveries to 1 or 2 times a week, instead of organising daily deliveries.



Managing risks from chemicals

By committing to only using REACH and California Prop 65 compliant chemicals, we assure consumers that they'll get a floor without potentially hazardous chemical substances.



Partnering up with trusted suppliers

Through a network of trusted suppliers, we make sure all raw materials carry the necessary certificates. Our sustainability code also applies to them.

We also meet the requirements of the Stockholm Convention on Persistent Organic Pollutants (POPs). These are the eternal chemicals that break down very slowly and are therefore very polluting to the environment. With Beauflor we don't use the POPs that are mentioned in this convention.



Prioritising quality assurance

Our global quality assurance system, which is based on stringent quality standards, enables us to maintain consistency across all organisational levels and conveys integrity.

Material matters

PolyVinyl Resin

More than 200 different additives are used to convert PolyVinyl Chloride (PVC) into thousands of applications. These additives provide a wide range of benefits to PVC products, including improved durability, thermal insulation, reduced maintenance, enhanced functionality and recyclability. Moreover, 57% of PVC consists of chlorine, which is made from common salt, while many other plastics are oil based. Last but not least, the production of PVC requires limited energy use, compared to, for example, the production of ceramic tiles¹.

Fillers

Natural fillers, in the form of calcium carbonate (mainly limestone), are used to add bulk to the mixture and to reduce the amount of resin required. This is what gives the vinyl its deep luxury texture. The limestone also adds dimensional stability to the floor and provides a neutral background to set off the colour or pattern. Good to know: limestone is known for its UV resistance, which increases the durability of the floor. The material also reduces the volume of VOCs² (volatile organic compounds) released into the atmosphere and requires little or no processing.

Plasticisers

PVC comes in two forms: as a rigid, unplasticised polymer (used in window frames, doors, etc.) or as a flexible plastic (used in credit cards, children's toys, etc.). Our vinyl floors belong to the second category, which contains plasticisers. However, our plasticisers are entirely free of harmful ortho-phthalates. To illustrate: we always use DOTP, a plasticiser that is considered safe by the European Chemicals Agency, due to its excellent toxicological profile. In other words: our clients can rest assured, we guarantee 100%-safe flooring solutions.

Other materials

Vinyl flooring consists of multiple layers: a base layer, a core layer, a printed layer and a protective wear layer. Each of these layers contains different materials, but we keep a close eye on their environmental impacts. For example, the stabilisers we add to the PVC are organic³. The inks we use to print the pattern are water based, 100% recyclable and free of toxic fumes. The PU lacquer is hardened with UV light, which helps minimise energy consumption in our factories.



Ortho-phthalates free

¹ <https://www.inies.fr/>

² <https://doi.org/10.1016/B978-1-895198-85-0.50007-8>
<https://www.sciencedirect.com/science/article/pii/B9781895198850500078>

³ <https://echa.europa.eu/documents/10162/ad151e2f-b765-c69c-ef8e-e9d996e50651>

STAGE 2 PRODUCTION



Within any manufacturing process, energy efficiency and effective waste management are two key environmental priorities. Needless to say, we pull out all the stops to address both topics adequately and thus drastically reduce our carbon footprint and combat contamination.

A selection of our actions to set up eco-friendly production processes:

Energy

Solar panels – The solar panels on the roof of our plant in Belgium produce approximately the same amount of energy used by 240 families on a yearly basis.

LED lighting – All our plants, warehouses and offices now strictly use LED lights, which are up to 80% more efficient than incandescent lighting.

Heat recovery – The excess heat from gas cleaning processes is recovered and reused via the latest heat recovery technology.

Waste

Digital printing – Pioneering with digital printing technology allows us to organise smaller production runs, which results in 2% less waste. This technology also enables us to use inks made without water.

Circular solutions – Nearly 65% of our manufacturing waste is recycled into other products by our manufacturing partners. Our goal is to recycle 100% by 2024.

Internal recycling – We set up internal recycling processes for, among other things, cushion vinyl waste, liquid waste and PVC paste.

Continuous production – Drastic reduction in line stops and changeover times times when going from one design to another leads to a reduction of 33% waste in our Belgian plant. We accomplish this by giving our operators a better training, using better raw materials and optimizing our machines.

STAGE 3 TRANSPORT



Freight transport is a major user of energy and a significant contributor to global warming through the emission of carbon dioxide. Therefore, in any lifecycle assessment, this stage deserves all the attention it can get. At Beauflor, we constantly evaluate the direct and indirect impacts of our transportation systems and look for ways to optimise them.

A selection of our actions to organise green transport:

Multimodal transport – We transport over 80% of our goods via inland waterways instead of roads. With over 37,000 km of waterways, Europe is an ideal place to explore the benefits of this reliable and energy-efficient means of transportation.

Proximity – Our main target markets are situated in Europe, so we deliberately produce in Europe to avoid the need for complex logistics processes and long transport routes.

Internal logistics – By revamping our internal logistics with an emphasis on automation, we have successfully increased efficiency, speed and accuracy. Moreover, this results in an overall drop in energy consumption.

Did you know that ...

... almost 100% of our post-manufacturing waste is recycled and incorporated into new products?



STAGE 4 PACKAGING



Sustainable packaging is important because it helps both us and our customers to preserve the planet. The reason: if no recovery and recycling processes are built into the lifecycle, the packaging ends up in the general waste chain or as litter along our streets.

A selection of our actions to optimise our packaging practices:

Take-back systems – The green dot ('Der Grüne Punkt'), used by over 130,000 companies, is the license symbol of a European network of industry-funded systems for recycling the packaging materials of consumer goods. This means that we recycle the packaging waste remaining after installation.

Eco-friendly materials – We use recycled materials in our packaging process. Our vinyl is rolled on a tube made from 100% recycled cardboard and held by plugs made from 100% recycled plastic. Integrating recycled content in our supply chain is a long-standing tradition at Beauflor and we will further step up our efforts in the future.

STAGE 5 INSTALLATION & USE



Our ambition is simple: we want our customers to enjoy the safest and healthiest floor coverings available on the market. That may sound like overstretching it, but our vinyl floors already rank among the world's top floors for sustainable use. This achievement is rooted in years of product innovation, smart investments and cross-sectoral experience. Responsible installation, although it may seem easy to overlook, can also make a big difference.

A selection of our actions that culminate in world-class installation and use experiences:

Adhesive-free or -low installation – Thanks to our textile backings, we are able to provide flooring solutions for areas of up to 45m² that don't require any glue during the installation – whereas PVC backings are only apt for loose-lay installations of much smaller spaces.

Sound absorption – By reducing irritating noises, we can make our homes, offices and public areas more comfortable places to be in. So, we design floors with a special soft foam backing that can easily absorb noises and improve the acoustics of a room up to 21dB.

Easy maintenance – Cleaning cushion vinyl is a piece of cake. With minimal water and detergent, the job is done in the blink of an eye, which also means more free time.

Lasting solutions – More than 60% of our standard collections are covered with our premium coating – a protective layer that prevents dirt and stains from leaving permanent marks.

Ensuring healthy workplaces, homes and public areas

It is easy to forget about air as a potential health risk, because we can't really see it. But studies have shown that poor air quality can lead to headaches, respiratory issues and performance impairment. Indeed, the environment in which we spend our time directly impacts us, and we happen to spend most of our time indoors.

Indoor air quality is closely related to emissions of volatile organic compounds (VOCs), which are emitted as harmful gases from certain solids and liquids that contain chemicals: paint, lacquer, glue, cosmetics, building materials, etc. Obviously, less VOCs means better air quality.

A good way to minimise VOCs? Healthy floors – which happens to be our trademark.

Absorb noises and improve the acoustics

Beauflor flooring solutions been awarded with well-respected international certificates related to VOC emissions, such as the American FloorScore certificate, the German AgBB label and the French A+ ranking. On a European level, we rank within the E1 class for formaldehyde emissions, the best class possible.



STAGE 6 END-OF-LIFE RECYCLE



We actively reject our society's built-in wastefulness through hyper disposability. The world needs more sustainable product solutions, and that starts with responsible product development. For example, our product development strategies focus on easy disassembly, improved longevity, maximum reusability and total circularity.

A selection of our actions to create meaningful end-of-life solutions:

Network of partners - We send all our waste products to our international processing partners, which then reuse the waste in new products.

Meticulous internal recycling - Leveraging the latest recycling technology, we manage to sort all our leftovers to optimise recycling (inks with inks, glass membranes with glass membranes, PVC with PVC, etc.).

Eco product development - Our products are made from 100%-recyclable materials, so when a floor no longer serves its purpose, it doesn't end up in landfills.



11+ Million tonnes

The amount of CO₂ that sectoral organisation VinylPlus (European PVC industry) managed to avoid emitting through PVC waste recycling since its start in 2000. Beauflor is a proud member of VinylPlus and contributes to its goals.



MOVING FORWARD STEP BY STEP

OUR SUSTAINABILITY PROMISES

Beauflor actively supports the worldwide movement towards more sustainable solutions. As an international company, we strongly feel responsible for reducing our impact on the environment. These are some of our main goals:

- ✓ We will ensure full compliance with environmental **regulations and laws** and regard **best practices** as the minimum standards for environmental performance.
- ✓ We will further minimise the need for raw materials and protect our planet's **resources**, and we will responsibly source the - preferably natural - materials required for our manufacturing processes.
- ✓ We will invest in facilities, equipment and technology to establish **energy efficiency**, effective **waste management** and sustainable **water consumption** to be a 100% sustainable business by 2030.
- ✓ We will explore new ways of **transport** and smart logistics that ease the burden on our planet.
- ✓ We will continue to commit to **eco-packaging** and **adhesive-free installation** processes.
- ✓ We will create flooring solutions that **improve people's lives** in a range of ways, from guaranteeing indoor air quality to offering acoustic benefits.
- ✓ We will keep our focus on materials and end products that are **fully recyclable** and take active leadership in ensuring end of life recycling in the future.
- ✓ We will take care of our **employees** as well as local communities.
- ✓ We will only work with **partners** that commit to our values of integrity and sustainability.
- ✓ We are **actively participating** in EU Horizon 2020 Circular Flooring projects (see page 20).

PIONEERING WITH CIRCULARITY



We could elaborate on how much we care about our planet and the people living on it. But we prefer to show which concrete projects we have in store for the future rather than stating the obvious.

Circular Flooring consortium

What?

The European Circular Flooring project aims to establish a circular recycling process for post-consumer PVC floor coverings.

Why?

For PVC products, recycling rates of only 20% have been achieved so far, while a large percentage of the PVC waste is still landfilled or incinerated.

How?

The consortium is further developing the CreaSolv® Recycling Process to separate PVC resin (from post-consumer floor coverings) from legacy plasticisers (phthalic acid esters) that do not conform to the EU REACH-Directive.

Our contribution:

As part of ERFMI, the European trade association representing the interests of the resilient floor covering industry in Europe, our in-house R&D team will analyse the usability of the PVC recyclate resulting from the CreaSolv® Process in our flooring products.

We don't make promises, we make plans

Circular SUsustainable FLOoring



What?

As an EU Horizon 2020 project, CISUFLO sets up a framework for circular and sustainable floor coverings, while minimising the environmental impact of the sector. The project will include 6 pilots focusing on manufacturing, sorting, separating and recycling laminate, resilient and carpet floor coverings.

Why?

To support the European Union's transition towards a circular economy, CISUFLO will help to shift approximately 5 billion euros or 12,000 jobs towards the circular economy sector, with the potential to triple these numbers in the longer term.

How?

#1 By developing solutions for recycling current floor covering waste streams and thus bringing the materials back into open or closed-loop recycling processes.

#2 By adapting the composition and manufacturing of current products to enable a higher recycled content.

#3 By developing, manufacturing and marketing novel flooring products and services that are fully fit for the circular economy.

Our contribution:

B.I.G. is one of the 19 core partners of the project and will focus specifically on vinyl floor coverings through Beauflor.



BEAUFLOR IN CERTIFICATES



REACH

Reach is an European Union regulation concerning the registration, Evaluation, Authorisation and Restriction of Chemicals. The position of B.I.G. floorcoverings, division cushion vinyl is clear; for all of our European legal entities and divisions, all measures are in place in order to ensure REACH compliancy. No harmful substances added, such as formaldehyde; lead; cadmium; mercury or hexavalent chromium.



AgBB

AgBB (Ausschuss zur gesundheitlichen Bewertung von Bauprodukten) is a committee for health-related evaluation of building products. Beauflor's vinyl products satisfy the stringent emission criteria as stipulated by the renowned DIBt Institute in Berlin.



Floorscore®

The most recognized indoor air quality (IAQ) certification standard for hard surface flooring materials, adhesives, and underlayments. Developed by SCS with the Resilient Floor Covering Institute (RFCI), a leading industry trade association of flooring manufacturers and suppliers, it qualifies for many green building schemes including LEED™ v4, WELL, BREEAM, and CHPS.



EPD - ERFMI

ERFMI (European Resilient Flooring Manufacturer Institute) has prepared EU wide Life Cycle Assessment of a broad range of flooring types and specifications. From this study, a series of Life Cycle Analysis data sheets have been produced, called EPD's (Environment Product Declaration). Beauflor is an active member of ERFMI.



Green A+ label

All our beauflor products carry the green A+ label, the highest accolade awarded by the French authorities.



VinylPlus®

VinylPlus® is the voluntary commitment to sustainable development of the European PVC industry, working to improve the sustainability performance of PVC. PVC can be recycled multiple times, and VinylPlus® works to do just this! Beauflor is an active member of Vinylplus®.



FDES

A FDES (Fiche de Déclaration Environnementale et Sanitaire) is a standardised document that shows the results of a product's life cycle analysis as well as health information, used to calculate the environmental and health performance of an eco-designbuilding. All our ranges are covered by an FDES, which enables our customers to assess the environmental impact of our products and to our engineers, to set eco-design objectives according to objective criteria.



ISO 14001

ISO 14001 certification means that the industrial site complies with all the environmental standards, measures all environmental impacts and is committed to continuously improve its environmental performance. Beauflor's Slovenian plant is ISO 14001 certified.



ISO 9001

The most widely used standard for quality control worldwide. The goal of the quality management system is to keep the organization focused on continuous improvement in order to increase customer satisfaction. Beauflor industrial sites are ISO 9001 certified.



LEED™

LEED™ (Leadership in Energy and Environmental Design) is an internationally recognised green building certification system developed by the US Green Building Council. Beauflor products comply with this protocol. Beauflor also contributes to LEED™ certification by offering low emission products (Floorscore certified products).

READY TO GO VINYL?

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