# FAST FLOORIN AND THE CIRCULAR ECONOM

## How adhesive-free flooring solutions

support sustainability



creating better environments

## **1. INTRODUCTION**

## 1.1 What is Fast Flooring?

Fast Flooring is a range of loose lay flooring options. The floors are designed to be quick and simple to install and remove, without the use of adhesive. There is a range of Fast Flooring options available for different applications and segments, including loose lay sheet, loose lay LVT solutions and modular matting systems.

Fast Flooring is becoming an increasingly popular option for companies looking for a flooring option to help them align with the principles of circular economy and support a quick and economic installation.

# 1.2 What are the key features of loose lay flooring?

Loose lay flooring brings a whole host of features that benefit customers and contractors, including:

- Shorter installation times than traditional flooring
- Ability to install while premises are in use, without disruption from noise, dust and adhesive odours
- Can be used straight away after installation
- Easy to remove at end-of-life without damaging subfloor
- Flooring can be recycled or reused at end of life



## 1.3 The history of loose lay flooring

The concept of adhesive-free flooring emerged at the end of the 20th century, primarily in office environments where frequent floor plan changes were common. The technology has evolved significantly over the past few decades.

## **Early Development**

Initially, loose lay products were basic vinyl tiles used in commercial spaces, offering limited design options but practical functionality.

### **Technological Advancement**

Manufacturers developed more sophisticated backing materials and stabilising layers, improving the flooring's grip and stability.

#### **Modern Innovation**

Today's Fast Flooring systems incorporate advanced materials and manufacturing techniques, resulting in products that combine easy installation with durability and aesthetic appeal.





## 1.4 Why the circular economy matters in flooring

The circular economy is an approach to manufacturing where products are designed for reuse, repair and recycling rather than disposal.

In flooring, this involves creating materials that can be easily removed, repurposed, or recycled at the end of their life cycle. This stands in contrast to traditional linear "takemake-dispose" models where flooring materials often end up in landfills. The concept emphasises:

- Sourcing recyclable materials for use in flooring products
- Designing floors that can be reused
- Creating systems for collecting and processing used flooring
- Developing technologies to transform old flooring into new products
- Minimising waste throughout the product lifecycle

# 1.5 Environmental challenges in traditional flooring practices

There are several environmental issues arising with traditional flooring, which can be combatted by the use of Fast Flooring.

## Adhesives

Traditional flooring installation often relies heavily on adhesives, which can create several environmental problems:

- Adhesive residue makes it extremely difficult to separate flooring materials for recycling
- When removing old flooring, adhesives often damage the subfloor, requiring additional materials for repair
- Adhesives typically cannot be recycled and contribute to landfill waste

## **Removal and disposal**

The removal of traditional flooring presents significant environmental challenges:

- The destructive nature of removal often means materials cannot be salvaged
- Multiple layers of flooring materials become permanently bonded, making material separation impossible
- Damaged materials during removal create additional waste
- The labour-intensive removal process increases the carbon footprint through extended use of power tools and equipment

The circular economy approach offers solutions to these challenges by:

- Promoting adhesive-free installation methods that allow for easy removal and reuse
- Developing flooring materials that can be fully recycled or biodegraded



- Creating systems for collecting and processing used flooring materials
- Reducing waste through modular design that allows for partial replacement
- Implementing take-back programs where manufacturers reclaim and recycle their products

This shift toward circular economy principles in flooring not only addresses environmental concerns but also offers practical benefits for installers, building owners, and end users through reduced waste, lower installation costs, and easier maintenance and replacement.

## 2. FAST FLOORING AS PART OF THE CIRCULAR ECONOMY

Fast Flooring plays a key part of the puzzle when it comes to achieving sustainability in flooring. It can help to reduce waste, reduce emissions and avoid harmful chemicals.

# 2.1 Product development & design principles

Circularity starts with design – considering how to incorporate circular principles into every aspect of the product and thinking about its entire lifecycle. The design of Fast Flooring follows a few core guiding principles:

## Modularity

Many loose lay floors are modular, which offers several advantages:

• **Easier repairs:** Individual pieces can be replaced if damaged, without affecting the whole floor. This, in turn, extends the lifespan of the floor.

- Manufacturing efficiency: Modular formats optimise material usage during production. The standardised sizes allow for more precise material calculations and better production planning, reducing waste.
- Flexibility of use: Modular flooring can be taken up, moved and rearranged multiple times without any reduction in performance. This means they last longer and are less likely to be thrown away.



### **End-of-life adaptability**

Fast Flooring designs prioritise long service life, future reuse and recycling:

- **Designing for longevity:** The broad range of materials and finishes available in Fast Flooring allows the selection of the perfect floor for each application, meaning floors are used for longer and stand the test of time.
- **Reusability:** When spaces are renovated or repurposed, loose lay floors can be easily lifted and reinstalled in new locations. This mobility preserves the embodied energy and materials rather than sending them to landfill. Without adhesive contamination, the modules maintain their full reuse value.
- **Recyclability:** As well as using materials that can be more easily recycled, Fast Flooring products are comprised of layers can be easily separated for proper material sorting.





## 2.2 Benefits of adhesive-free installation

Another environmental benefit of Fast Flooring is its adhesive-free insulation. Adhesive-free installation of Fast Flooring eliminates the issues of traditional installation by:

- Keeping flooring materials uncontaminated by adhesive so they can be repurposed or recycled
- Removing all adhesive-related emissions from the installation process
- Reducing packaging waste since no adhesive products are needed
- Eliminating the need for primers and surface preparation chemicals
- Preventing damage to the subfloor, which itself can result in more waste and emissions if the subfloor needs to be repaired or replaced



## 3. MEETING SUSTAINABILITY GOALS WITH FAST FLOORING

As well as the circularity benefits, selecting Fast Flooring for your building can help you meet other sustainability goals.

# 3.1. Contribution to green building standards

Fast Flooring contributes to LEED and BREEAM points, for example through:

- zero VOC emissions (no adhesives)
- use of partially of recycled content
- enhanced recyclability at end-of-life
- waste reduction during installation.

The low environmental impact lifecycle and verifiable material composition of our products can help you meet these industry standards and support your documentation requirements. The ability of our floors to be reused and recycled aligns with circular economy credits in both certification systems.

# 3.2. LCAs and EPDs to aid sustainability reporting

All Fast Flooring products come with Life Cycle Assessments (LCAs) and Environmental Product Declarations (EPDs), providing complete transparency and enabling you to demonstrate you're meeting the sustainability requirements for your building or premises.



## **4. REAL-WORLD APPLICATIONS**

While many different sectors and building types can benefit from Fast Flooring, we have found that they are especially advantageous for some in particular:



**Retail spaces** benefit from quick installation with minimal disruption to operations and easy replacement of hightraffic sections.



Healthcare facilities gain infection control advantages through seamless installation without adhesive gaps.



**Education environments** appreciate rapid installation during breaks and simple section replacement for damaged areas.

**Office spaces** value the ability to reconfigure layouts and relocate flooring during tenant changes.



#### **Case study: REWE Germany**

The supermarket REWE in Germany chose a high-performance Fast Flooring product for the renovation of its Nalbach store. Store Manager Peter Teucke was looking for an aestheticallypleasing flooring solution that would be quick to install and flexible in case of any future store redesigns.

Forbo Flooring's Allura Puzzle was the obvious choice: a loose lay tile system in an attractive design, which was laid in just two days. The 96x96 cm tiles were installed without adhesive over the existing terrazzo floor using just a rubber mallet. Interior Designer Thomas Fuchs said: "I've been laying floors for over 40 years and have never had a product that is so quick and easy to install." The flooring also helped the company reach their sustainability goals, as the modular tiles mean they'll easily be able to repair and replace individual sections, extending the floor's service life.

## **5. CONCLUSION**

Not only does Fast Flooring offer economical and practical advantages such as quicker installation time, lower labour costs and flexibility – it can also help you achieve sustainability goals for your building or business.

Fast Flooring will continue to play a key role in achieving circularity within the flooring industry, as well as the construction industry overall.

#### Forbo Flooring – your Fast Flooring partner

Forbo Flooring is a pioneer in accelerating the transition to a circular economy for flooring, as demonstrated by our Fast Flooring range. We can help you find the right loose lay flooring for your application, from loose lay sheet to modular systems.

As well as excelling in product development, Forbo Flooring are industry partners throughout the whole lifecycle – for example, collecting and repurposing or recycling substantial amounts of flooring waste through the 'Back to the floor' recycling schemes. In 2024, Forbo Flooring saved 637 tons from landfill through these schemes.

Through industry partnerships and ongoing R&D, we continue to expand our loose lay offerings and recycling capabilities. Join us in transforming the flooring industry by choosing solutions that prioritise both performance and planet.



#### **Our materials**

The materials used in Fast Flooring products are selected with longevity in mind. Furthermore, efforts are always made to increase the amount of recycled materials included in Fast Flooring products.

- The recycled vinyl content in vinyl-based Fast Flooring ranges from 16% for Compact Modul'up to 69% recycled vinyl content in Colorex Plus.
- Hardwearing vinyl is chosen as it can be recycled up to 10 times without losing any performance qualities.
- Our textile loose lay products also contain recycled content, for example Flotex NEXT contains 22% recycled content.

## GLOSSARY

## BREEAM (Building Research Establishment Environmental Assessment Method):

The world's leading sustainability assessment method for infrastructure and buildings. Developed in the UK, it sets standards for environmental performance through design, specification, construction, and operation phases.

#### **Circular Economy:**

An economic system focused on eliminating waste by continuously reusing and recycling resources, maximizing their value through multiple lifecycles while minimizing environmental impact.

#### Lifecycle Assessment (LCA):

A systematic analysis that measures a product's environmental impacts from raw material extraction through manufacturing, use, and disposal, helping quantify its total environmental footprint.

## LEED (Leadership in Energy and Environmental Design):

A globally

recognized green building certification system that provides verification of sustainable building practices through a points-based rating system.

#### **VOC Emissions:**

Volatile Organic Compounds released into the air from certain materials and chemicals, including flooring adhesives. These compounds can negatively impact indoor air quality and human health.

## **FURTHER READING**

You can learn more about the circular economy and our sustainability mission on our <u>Sustainability Hub</u>.

For more information on all the Fast Flooring products that Forbo Flooring offers, visit our <u>Fast Flooring pages</u>.

Find us on



Forbo Flooring Systems

P.O. Box 13 1560 AA Krommenie The Netherlands Tel.: +31 75 647 74 77 E-mail: question@forbo.com

