



ASBP Healthy Building * Conference EXPO

Healthy Floors

15/02/2017

About Us

- Forbo Flooring Systems part of Forbo Group, HQ in Baar, Switzerland
- 12 European Manufacturing Facilities (UK, France, Holland, Switzerland, Russia)
- FFS and Forbo Movement Systems divisions, employs more than 5,200 people international network of 24 production and distribution companies,
- 42 sales organizations in 35 countries worldwide.

Our footprint

How it's made



marmoleum® is made from **97%** natural materials

100% of **tessera®** carpet trim is recovered in the UK




coral® welcome primary backing is made from recycled pop bottles

<60% recycled content in the backing of our **vinyl** ranges

>70% recycled content in the backing of **westbond™** carpet tiles

<67% recycled content in **flotex®** tiles

43% recycled content in **marmoleum®**



100% of aluminium and steel waste from our **nuway®** production is recycled


THE CAMPAIGN FOR WOOL
Patron: HRH The Prince of Wales

westbond™ natural carpet tiles are made from undyed wool from British sheep

<58% recycled content in all **tessera®** tufted carpet tiles made in the UK



Ultrasonic cutting of **allura** reduces waste by **80%**



ECONYL® yarn made from abandoned fishing nets



100% of **westbond™** polyamide carpet trim is recovered in the UK



Save a **Sample** and reduce the amount of virgin material used

Forbo
FLOORING SYSTEMS

creating better environments

Patron of **Outward Bound** charity



5 UK factories
>500 Employees

MADE IN THE UK

Your footsteps

How it performs

<65% reduction in cleaning time when **coral®** is installed

All Forbo products sold and made in the UK are produced with **100% electricity from renewable sources**

Our innovative random-lay carpet tiles reduce fitting waste to less than

2%

marmoleum® is biodegradable in a controlled environment




flotex® releases twice as many allergens on cleaning than standard carpet



nuway® tuftguard mats are reversible, effectively doubling their life

100% of our packaging is recyclable



allura flex tiles can be easily removed to recycle at the end of their life



reduces scuffing so less cleaning




marmoleum® inhibits the growth of MRSA, C Difficile and other bacteria

95% of dirt and moisture can be kept outside the building with **coral®**



We work with Recycling companies to clean, reuse and recycle old carpet tiles in the UK



Here in the UK we recycle installation waste back into Forbo products

Sustainability is about the things you can't see

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Committed To The Health Of One – 3 Pillars

Safety

Visual Orientation

Prevent Accidents

Avoid Negative Health Effects

Hygiene

Easy To Clean

Help prevent allergies and control bacteria

Prevent dust and dirt from coming into a building

Well Being

Creating atmosphere – colour, texture, design, comfort

Contribute to acoustic quality

Reduce stress

Health Benefits - Safety

What is the benefit?	How do floors contribute to it?	Reference	What do our products offer?	How can we check?
Safe products that avoid negative health effects	Avoidance of chemicals that have or are suspected to have adverse health effects Quality products	[1] ECHA [2][5] PVC [3] [4] Phthalates [5] Red list	All products REACH compliant* All products BPA free and formaldehyde free* In our portfolio: PVC free offer, Phthalate free offer, Red list free offer	EPDs on our website
Safe indoor environment	Avoidance of emissions that have or are suspected to have adverse health effects	[6] [7] [8] indoor air, emission, VOC	All products compliant within AgBB, AFFSET, CDPH and CHPS In our portfolio: low emission flooring products and adhesives Loose lay products (no glue)	Third party test report on emissions (e.g. Eurofins, GEV)
Increased safety and orientation for dementia/Alzheimer patients	Flooring design and texture can help prevent falls and improve orientation for the 44 million people living with Alzheimer and dementia	[9] number of people [10] advice on indoor environment including flooring in dementia care	Design for dementia collection (fall 2015) Design guidelines and expertise	Collection- Website Design team with qualifications on design for dementia
Less chance for slip, trips and falls	Slip resistance flooring can help prevent slip, trips and falls, which are 33% of accidents	[11] >33% of work related injuries	Sustainable slip resistant resilient and textile flooring for all levels of slip resistance Only Forbo offers LVT with sustainable slip resistance	Collections (Step and textile) Allura Safety

Health Benefits - Hygiene

What is the benefit?	How do floors contribute to it?	Reference	What do our products offer?	How can we check?
Reduced asthma burden	235 million people worldwide have asthma. Environmental exposure to inhaled substances or particles is a risk factor in developing asthma. Flooring properties, in combination with the right cleaning regime, can help limit indoor allergens and reduce asthma triggers.	[12] number of people [13] growing number [14] influence of flooring and cleaning on reducing triggers [15] Allergy UK	Flotex and Marmoleum have allergy approvals from Allergy UK WHO advises linoleum to prevent asthma Coral EFS takes up more dirt than competition Linoleum, Flotex and vinyl products have proven Easy clean properties	Certificates of Approvals Guidelines Benchmark External test reports
Reduced allergy burden	The number of people with allergies is growing and avoiding triggers helps to reduce the allergy burden. Flooring properties, reduced emissions and the right cleaning regime can help limit indoor allergens and reduce allergy triggers.	[16] rising number [14] influence of flooring and cleaning on reducing triggers [15] Allergy UK	Flotex and Marmoleum have allergy approvals from Allergy UK Coral EFS takes up more dirt than competition Linoleum, Flotex and vinyl products have proven Easy clean properties In our portfolio: loose lay and low emission flooring products and adhesives	Certificates of Approvals Benchmark External test reports Collection
Less exposure to bacteria, increased hygiene	Floors with antimicrobial or bacteriostatic properties reduce the number of bacteria present. This improves hygiene and aids infection control.	[17] link with HAI [18] antimicrobials reduce number of bacteria on the floor	Entrance systems prevent dirt with bacteria coming into the building Proven Easy Clean properties Antimicrobial/ Bacteriostatic offer (Flotex, Marmoleum, Sarlon Sparkling)	External test reports External test reports and benchmarks Ext test reports on bacteriostatic activity
Bacteriostatic functionality without added pesticides	Resistance against antimicrobials and use of pesticides is a growing concern. Marmoleum flooring is naturally bacteriostatic; it offers bacteriostatic properties without antimicrobial additives.	[19] antimicrobials in building materials concerns [20] WHO concern	Bacteriostatic functionality n Marmoleum and other linoleum products, without added biocides/pesticides/antimicrobials	Ext test report confirming bacteriostatic activity

Health Benefits – Well Being

What is the benefit?	How do floors contribute to it?	Reference	What do our products offer?	How can we check?
Reduced stress	Indoor environments that reference nature contribute to well-being and reduce stress	[21] [22][23] Relation between green space / nature and health / stress [24] Biophilia (reference to nature) and health	Natural materials in Linoleum products and Nuway Tuftiguard Bamboo Designs that associate with nature in Eternal + Allura wood and other products	EPD Collections
Peace of mind	Sustainable choices in how flooring is made and how it performs reduce impact on the environment Use of natural and renewable materials Responsible design Trustworthy company	[25] Description of our environmental effort: How it is made [26] Sustainability report: FFS has reduced it's impact on the environment by 18% from 2009 as measured by LCA.	Portfolio with natural material content (linoleum products, Nuway Bamboo and Sarlon Absolu) Limited use of additives Publishing EPDs Sustainability and CSR goals	EPD EPD Website Sustainability Report
Higher productivity and well-being	Better indoor air quality (reduced emissions) gives productivity improvements Productive and environment due to reduction of background noise Lighter work environments stimulate productivity /well-being	[27] Green Building Council report on effect of indoor environment on productivity [28] Effect on occupant satisfaction [29] Effect on learning [30] [31] Effects of noise [32] Evidence Based Design HC	In our portfolio: low emission flooring products and adhesives Acoustic product offer resilient and textile High LRV offer	Third party test report on emissions (e.g. Eurofins, GEV) Collections LRV values (int test)
Wellbeing and comfort	Through their colour, texture and design floors are capable of positively contributing to the atmosphere of an indoor space	[27] Effect of design in GBC report [33] Overview of influence of workplace design on well-being [34] Relation between design and mental health	Attractive design fitting the purpose Design tools, in house design experts Broad portfolio with a balanced offer in different materials, textures and visuals Ability to answer to individual needs	Collections Website Broad portfolio Portfolio, Digital printing

BRE, SKA, LEED, WELL

- Flooring included in all above schemes to a greater or lesser extent
- Focus on indoor air quality / BREEAM rating (01350, Agbb)
- Entrance schemes (WELL), In BREEAM, for example they are not included as a stand alone product.
- Moving forward BREEAM 2018 focus is on EPD's.....but what about HPD's.
- Q: Do these schemes drive us to deliver healthier, safer products that benefit all stakeholders?

Committed To The Health Of One – Future Work

- Forbo Flooring Systems is supporting Prof. Dr. Ph. Bluysen and her team at Delft Technical University (Netherlands) for a two year field and lab study project to research the role of flooring materials in health, comfort and performance of children in class rooms
- Internal Improvement program with focus on Indoor air emissions, Asthma and allergy triggers, Light reflectance, Acoustics, Cleaning and maintenance

Summary

- We are working to make a positive contribution to the health, safety and wellbeing of users of our products, our employees and our supply chain.
- It is recognised that we cannot do this alone and that collaborative learning programs, led by organisations such as UKGBC, have a leading role to play.
- Working together is the only way that we can design and deliver safer and healthier products which contribute to creating a better environment