



**SUSTAINABILITY
REPORT
2019**

**PROUD
TO BE
GREEN**

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Welcome to Polyflor

Welcome to our 14th annual report. This report sets out to openly and comprehensively communicate our sustainability performance for 2018 in an engaging manner to all our stakeholders.

Sustainability at Polyflor is not the responsibility of just one person: It is very much a team effort throughout the entire company and involves listening to our customers and other external driving forces. Sustainability is driven by our board of Directors across all areas of the business and includes our environmental objectives and processes or quite simply, encouraging employees to 'do their bit' at home, in the community and in the work place.

Like all manufacturers, Polyflor has an environmental impact and therefore an important responsibility to minimise this impact. This report highlights our endeavours in doing so through our focused objectives and guiding policies. Furthermore, we will continue to report with integrity and without partiality and indicate where improvements can be made in the future.

Polyflor continues to be industry leading with regards to sustainability achievements, including having used harvested rainwater for production since 1915 and recycling vinyl since we pioneered it in 1950. Polyflor was an early adopter of BRE with products first assessed on a Life Cycle Analysis in 2005. We were also the first commercial flooring manufacturer to achieve the BRE's standard for Responsible Sourcing, BES 6001, for many of our products. There were many other firsts, including being the first flooring manufacturer to achieve GreenTag LCARate certification and being the first flooring manufacturer to roll out a recycling initiative inclusive of site collections and distributor drop-off sites to suit all customer and waste volume requirements.

I'm pleased to announce some significant accomplishments for Polyflor in 2018. Throughout our UK production sites, we were successful in decreasing our energy consumption by 16% - the lowest in 7 years. We also reduced our carbon footprint by increasing renewable energy consumption to 84% and therefore reducing Direct Greenhouse Emissions by 13%.

Once more, our Transport & Logistics department worked hard to reduce CO₂ emissions through improved drivers' performances, reduced fuel and increased bulk loads.

Last but by no means least, Recofloor celebrates its 10 Year Anniversary in 2019, an achievement that Polyflor is very proud of. Our continued support and commitment to this recycling scheme is quantified and qualified as we continue to increase waste vinyl collections.

As a business, we are pleased with 2018's results and the progress that we have continued to make, although we will strive to improve in 2019 and beyond.



Mark Halstead
Group Chief Executive, James Halstead PLC



Striving for a better future



About this report

This report provides an overview of Polyflor's sustainability performance for the 2018 calendar year and enables us to communicate to all stakeholders and be accountable for our sustainability activities and identify where improvements should be made.

Report Boundary

The environmental data reported is required as part of our BES 6001 sustainability objectives and framework and relates to our 2 UK production sites. In compliance to our BES 6001 Excellent rating, the methodology used for significant environmental aspects is outlined herewith.

Polyflor Environmental Impacts Assessment - Methodology

General

Polyflor has assessed its operations and as a result has identified environmental impacts of the business.

Responsibilities

It is the responsibility of Polyflor Senior Management to systematically examine their business operations and identify possible and actual effects on the environment.

Control Measures

- Internal procedure titled "Environmental Aspects Identification and Assessment".
- Register of Environmental Aspects.
- Environmental Aspects Identification and Assessment Form.
- Register of legal requirements.
- Environmental Objectives.

Identification of Environmental Aspects

Polyflor has identified 18 non-significant aspects and 15 significant aspects. Identification of all Environmental Aspects consider the following:

- Possible and actual effects on the environment.
- Type of activities carried out.
- Use of materials and utilities.
- Generation of solid and liquid waste.
- Discharges to sewer or surface waters.
- Emissions to atmosphere.
- Energy consumption.
- Transport and distribution.
- Noise emissions.
- Packaging.
- Housekeeping and visual impacts.
- Effect of fire.
- Effect of flooding.
- Electrical failure.
- Spillages on site.

Significant Environmental Aspects

- EA8 Transport of goods and materials to the Polyflor site.
- EA9 Energy Use - steam generation.
- EA10 Emissions to air from safety flooring manufacture.
- EA12 Environmental noise and vibration from site.
- EA13 Generation of waste for off-site disposal or reclamation.
- EA14 Disposal of foul water.
- EA17 Packaging of final product.
- EA18 Distribution of product from site.
- EA24 Effect of liquid spillage from site.
- EA25 Use of cooling towers on site.
- EA26 Presence of asbestos in building materials on site.
- EA27 Presence of chiller systems.
- EA33 Demolition and building on site.
- EA36 Climate change and energy.
- EA37 Water abstraction.

Assessment of Significance

Environmental Aspects are assessed based on environmental risk.

The severity score will be based on the following:

1-4 = Trivial effect.

5-8 = Minor effect.

9-12 = Major effect.

The likelihood will be based on the following:

1 = Improbable occurrence.

2 = Possible occurrence.

3 = Occasional occurrence.

4 = Regular occurrence.

The significance is calculated from multiplying the severity by the likelihood. An aspect is considered significant if the significance score is greater than 25.

Environmental Aspect Identification and Assessment Form

Each aspect identifies the following criteria.

- Description of the area of activity.
- Description of the environmental impact.
- Specific activities associated with impacts.
- Mitigation strategies (objectives).
- Legal requirements.

Review of Environmental Aspects

Environmental aspects are reviewed periodically by senior management to assess the following:

- Progress of associated objectives and targets.
- Associated activities.
- Necessary updates/changes.
- Need for identification of new aspects.
- Significance Score.

Auditing of Environmental Aspect

All significant aspects are audited to ensure:

- Compliance to legal requirements.
- Compliance to management system requirements.

Polyflor is compliant to legal and management system requirements and remains accredited to ISO 14001.

Stakeholder Engagement

Stakeholder engagement is important to Polyflor and facilitates a two-way process for communication and insight, as outlined within our BES 6001 parameters. The stakeholder consultation process and its activities generally involve meetings, feedback procedures and surveys, audits, representations and regular contact and involvement with the following: Employees; customers; suppliers; trade unions; industry associations; local communities; shareholders; government and financial organisations.

We value your opinions and would welcome feedback on this report. Please get in touch at info@polyflor.com

Governance

Polyflor Ltd. is part of James Halstead PLC, with UK headquarters based in Manchester. The James Halstead Group employs over 830 people, has two UK production sites and 17 sales distribution sites worldwide.

Polyflor Ltd. has a board of 6 directors who report to Mark Halstead, Group Chief Executive and the executive board of James Halstead PLC. Mark Halstead is the fourth generation of the family to head up the business, following his Father, Geoffrey Halstead's official retirement in December 2017, after 70 years with the company.

Polyflor's directors are responsible and accountable for the compliance of policies which form the basis of our Code of Conduct. This promotes equality, trust and integrity and ensures legal, regulatory and ethical compliance.

Standards of Conduct

Employees

We will treat employees fairly and use employment practices based on equal opportunity for all employees. Recruiting, employing and promoting employees on the basis of objective criteria and the qualifications and abilities needed for the job to be performed in line with the Equal Opportunities Policy.

Customers

We will provide high quality and value, competitive prices, and honest transactions to those who use our products. We will deal lawfully and ethically with our customers.

All employees are expected to behave respectfully and honestly in all their dealings with customers and the general public in accordance with the principles set out in this Policy.

Suppliers

We will deal fairly with our suppliers. We will seek long lasting business relationships, without discrimination or deception. In those dealings, we expect those with whom we do business to adhere to business principles consistent with our own.

Communities

We are committed to fostering good relationships with the communities in which we work. We will abide by all national and local laws, and we will strive to improve the wellbeing of communities through the protection of natural resources, through the encouragement of employee participation in charitable affairs.

National and International Trade

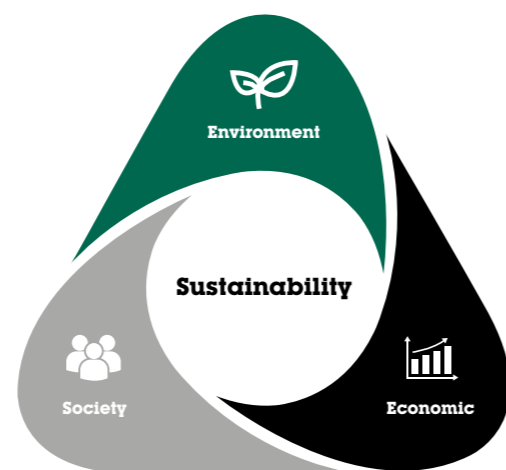
We will seek to compete fairly and ethically within the framework of applicable competition. We will comply with all applicable export control laws and sanctions when conducting business around the world.

Our Vision

Polyflor’s vision is to minimise carbon emissions as much as possible, as well as being socially and economically responsible. The vision of our business model is fully encompassed by the Three Pillars of Sustainability, which focus on synergy between Environment, Society (people) and Economics.

Key Steps to achieve a more sustainable future

- 1 The avoidance of emissions to the ecosystem.
- 2 The introduction of products that are environmentally consistent with their intended use by providing a high level of durability, reliability, ease of maintenance and safe disposal at end of life.
- 3 Active participation in industry initiatives and projects that improve environmental impact.
- 4 Careful selection of materials, processing techniques and state of the art technology to reduce environmental impact.
- 5 Compliance with circular economy principals:
 - Reduction of waste to a minimum
 - Conservation of resources by use of recycling
- 6 Engaging and raising environmental awareness by regular and open communication with all stakeholders.
- 7 To go above and beyond in the communities in which we operate.
- 8 Best practice procurement and business ethics.



The Three Pillars

- Environment**
 - Natural Resource Use
 - Waste & Pollution Prevention
 - Bio Diversity
 - Energy Efficiency & Renewables
 - Green Technology
- Economic**
 - Growth
 - Profit
 - Cost Saving
 - R&D
- Society**
 - Responsible Sourcing, Stewardship & Fair Trade
 - Business Ethics
 - Working with Local Communities
 - Workers’ Rights & Benefits
 - Standard of Living
 - Jobs & Education

Sustainable Progress

Our 2018 Achievements

84%
renewable energy supply used

16%
decrease in energy used

8261
decrease in fuel consumption (litres)

50%
increase in ‘A rated’ drivers

570
tonnes post consumer waste collected via Recofloor

198
delegates trained on our floor fitting courses

Here are our KPIs for 2018*:

Sustainable Design

- Palettone PUR was launched: An environmentally sound, UK produced homogeneous floor covering, 85% natural material and phthalate-free; 25% recycled material and 100% recyclable; low VOC certification; PUR reinforcement for low maintenance; EN 15804 EPD and BRE A+ rating.
- Polyflor worked with the Dementia Services Development Centre (dscd) at the University of Stirling to assess product suitability in dementia friendly environments.

Production

- 84% renewable energy supply used.
- 16% decrease on energy - lowest figure in 7 years.
- Reduced Direct and Indirect Greenhouse Gas Emissions by 13% and 32% respectively.
- Waste recycling increased by the following: 3% production waste; 80% packaging; 19% wood; 26% liquid.
- All vinyl waste recycled increased by 1%.

Logistics

- Diesel forklift trucks replaced with modern, electric ones, saving 56 tonnes of CO₂ per year.
- A 1% reduction of CO₂ - a decrease of 7,371 kgs on 2017 from our fleet.
- Fuel consumption decreased by 8,261 litres.
- 1.1% increase on bulk loads.
- Backhaul operations removed at least 372 HGV journeys from the road network.
- 50% increase on A Rated Drivers, significantly improved transport impacts.

Recycling

- Since Recofloor UK started in 2009, it has collected 4,341 tonnes - enough vinyl waste flooring to cover nearly 203 football pitches.
- Recofloor increased on 2017’s total tonnage by 1.6%, collecting 570 tonnes.
- Recofloor Australia and New Zealand recycled 18.5 tonnes of Polyflor waste vinyl flooring more than double the figure for 2017.

Environmental Assessments

- Palettone PUR and Polysafe Quattro PUR were individually assessed by the BRE, achieving A+ certification.
- Palettone PUR, Bloc PUR, Expona Flow PUR, Affinity2⁵⁵ PUR and Polysafe Quattro PUR were individually assessed by Global GreenTag.

CSR

- 43 new employees were recruited - 105% increase.
- Employee retention was highest in 5 years.
- Increases in full time employees, female staff and female managers. Also doubled internal promotions.
- 1 new member in each of the 25 and 40-Year Clubs, totalling 41 and 10 members respectively.
- Polyflor hosted 24 floor fitting courses on site, training 198 delegates.
- Polyflor by far superseded its CSR targets and continued to liaise with and support local communities, comprising charitable donations, volunteering and fostering better relationships with immediate neighbours.
- Engaging staff with communities, employees were urged to vote for one of three selected charities. £500 was donated to the winning charity (Bleakholt Animal Sanctuary) and £250 to two runners up (Mahdlo and CHILD Deaf Youth Project).

*Data increases or decreases are compared with 2017.

From 1915 to present day

<p>1915</p> <p>Lodge water is used on site to harvest rainwater for production.</p>	<p>1950</p> <p>Post production vinyl is recycled.</p>	<p>1992</p> <p>ISO 9001 quality certificate attained.</p>	<p>1998</p> <p>Polyflor's first low maintenance PUR products are produced, reducing environmental impact.</p>	<p>2000</p> <p>Polyflor gains ISO 14001 environmental certification.</p> <p>Polyflor signs up to the Vinyl 2010 commitment.</p>
<p>2009</p> <p>Polyflor cofounds and invests heavily in the Recofloor vinyl flooring recycling scheme for post-consumer waste.</p> <p>Recyclable paper packaging used, replacing plastic roll wrap.</p> <p>Polyflor products go onto Ecospecifier database.</p> <p>FloorScore® VOC certification is achieved.</p>	<p>2008</p> <p>First VOC emissions certificates available.</p>	<p>2007</p> <p>Polyflor joins a working group to recycle post consumer waste vinyl flooring.</p> <p>Polyflor joins Recovinyl.</p>	<p>2005</p> <p>First products are individually assessed by BRE Global.</p> <p>First VOC emissions tests.</p>	<p>2003</p> <p>First Environmental Brochure produced.</p>

<p>2010</p> <p>LVT ranges achieve BRE A+ individual ratings.</p> <p>First products achieve GreenTag LCARate certification.</p> <p>Recofloor is set up in Australia and New Zealand.</p>	<p>2011</p> <p>Polyflor's new fleet has Euro V compliant engines for reduced emissions.</p> <p>Polyflor joins Vinyl Plus. Polyflor makes significant progress in its energy consumption, making reductions of over 43% and reducing carbon emissions by 15,236 tonnes.</p>	<p>2012</p> <p>Expona Simplay, loose lay LVT is launched. Adhesive free for reduced environmental impact.</p> <p>3rd party EN15804 EPDs available.</p> <p>Indoor Air Comfort Gold VOC certification is available.</p> <p>AFSSET indoor air quality labelling starts.</p> <p>Recofloor has first Annual Awards Ceremony.</p>	<p>2013</p> <p>3 Product Specific EPD's for Expona Design, Commercial and Domestic. Generic EPD's for resilient flooring through collaboration with the industry body and partners within ERFMI.</p> <p>Secura is launched - a Luxury Vinyl Sheet with PUR, available in multiple widths to reduce waste, which can be loose laid on areas up to 24m².</p> <p>SA 8000 certification is achieved.</p> <p>Obtains BES 6001 certification for Responsible Sourcing, achieving a 'very good' rating for LVT product ranges.</p> <p>PVC Best Practice on Polyflor's homogeneous flooring ranges, independently verified by NCS International Pty Ltd.</p>
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Over 100 years minimising our footprint

<p>2015</p> <p>Winner of 'Made in the North West - Green Company 2015'.</p> <p>Floor Cleaning & Maintenance Course launched to promote sustainable cleaning processes and maximise Polyflor floor coverings' longevity.</p> <p>Recofloor is rolled out to Iceland.</p> <p>BS OHSAS 18001 is achieved.</p>	<p>2017</p> <p>Obtains BES 6001 Excellent rating.</p> <p>Recofloor has a record year, recycling 563 tonnes of waste vinyl flooring from the UK.</p> <p>All Polyflor's HGVs are replaced with Euro VI engines for lower emissions.</p> <p>Silentflor is launched - low maintenance, low VOC, environmentally certified and recyclable.</p> <p>78% renewable energy is used.</p>
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<p>2014</p> <p>Polyflor becomes a member of the BRE EPD verification scheme.</p> <p>Economiser installed on steam boiler increasing boiler water feed temperature to boiler, improving efficiency.</p> <p>BES 6001 certification for Responsible Sourcing is obtained, achieving a 'very good' rating for most homogeneous, safety and heterogeneous products.</p> <p>Camaro Loc PU is launched - adhesive free for reduced environmental impact.</p> <p>Product Specific EPD for Expona Simplay.</p>	<p>2016</p> <p>Recofloor wins the Let's Recycle Award for Excellence in Recycling & Waste Management.</p> <p>Polyflor South Africa launches first official recycling scheme for the local vinyl flooring industry.</p> <p>Bloc PUR is launched - a low maintenance and solid colour sheet flooring to minimise wastage.</p>	<p>2018</p> <p>Recofloor has a record year, recycling 570 tonnes of waste vinyl flooring from the UK. Recofloor Australia and New Zealand recycle 18.5 tonnes, more than double the previous year.</p> <p>Palettone PUR is launched: 85% natural material and phthalate-free; 25% recycled material and 100% recyclable; certified for low VOC and positive LCA.</p> <p>84% renewable energy supply used.</p> <p>16% decrease on energy - lowest figure in 7 years.</p> <p>Diesel forklift trucks replaced with modern, electric ones.</p>
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Sustainable Design

Sustainability is at the heart of our design process, from the healthier materials we use to how well the product performs in the in use phase. In terms of aesthetics, sustainability is an important consideration: For instance, some decorative patterns or plainer designs help to minimise waste and can help future-proof interiors, improving longevity.



"As Group Design Manager it is crucial to innovate, and with each project comes specific, essential requirements. From the outset, the goals should always be to embrace technological enhancements whilst producing a functional and aesthetic product that can perform for years to come.

"As an established, commercial business we are tasked with meeting customer desires in tandem with satisfying our own criteria. The development process enables us to be alert to, but avoid any unnecessary trends, minimising dated or 'out of season' designs and increasing longevity. This strengthening philosophy of minimising waste whilst maximising the lifecycle of the material is critical to our development process.

"A logical and correct understanding of each project provides the opportunity to both conserve resources and enhance the user experience, continuing to lead us on a more sustainable path."

Craig Moorhouse,
Group Design Manager, James Halstead PLC

New Product Development

In collaboration with industry partners, Polyflor is working on developments in new products and technologies. We are continually evaluating new ideas or alternatives which improve our environments.



Contribution to the Built Environment: To develop products that improve the quality and sustainability of the built environment.

In 2018, Palettone PUR was launched: A new addition to our family of environmentally sound, UK produced homogeneous floor coverings. Made with 85% natural material and phthalate-free, it has extremely low VOC emissions and is certified in accordance with Indoor Air Comfort Gold, FloorScore® and Afsset, for superior indoor air comfort and quality.

Palettone also contains 25% recycled material, using our post-production and reclaimed post-consumer waste vinyl. It is also 100% recyclable through the Recofloor take-back scheme, or other international recycling schemes.

Its extensive colour options are inspired by nature and the solid colour base with complementary, subtle toned highlights respond to a general trend towards plainer decoration product. Combined with a semi-matt surface emboss, the aesthetic benefits suit the 'Design for Dementia' movement in the UK and around the world and help to future-proof design (reducing needless replacements). The subtle, non-directional design also helps the installation process and keeps waste to an absolute minimum.

Palettone has been developed with the end user in mind and has PUR to ease maintenance and increase longevity, further reducing the environmental impact and cost of its in-use phase. Palettone comes with our usual LCA accreditation, including generic EN 15804 EPD and individually assessed BRE A+ ratings.



100% Recyclable Low VOC emissions Resists soiling & scuffing



Featured Image: Palettone PUR



Future-Proof Design with Dementia in mind

Dementia-friendly interior design can have a real impact on health and wellbeing, helping to promote a more positive environment for people living at home or within an assisted living facility. Flooring can work hand in hand with other interior elements to provide a comfortable environment for residents living with the condition.

The Facts & Figures

In the UK

- Over **850,000** people are living with dementia.
- The rate of diagnosis is set to increase to over **1 million by 2025** and **2 million by 2051**.
- **225,000** will develop dementia this year, that is **one person every three minutes**.
- **1 in 6 people** over the age of 80 have dementia.

Worldwide

- Over **6 million** people with dementia in Europe.
- Almost **36 million** people with dementia in the world, but as many as 28 million of those living with dementia worldwide do not have a diagnosis.
- The numbers of people living with dementia worldwide is expected to **double every 20 years**.
- **115 million** people worldwide are projected to be living with dementia by 2050 – **71%** will be from developing countries.
- The estimated cost of dementia worldwide is **US\$604 billion** (£380 billion).

A World Health Organisation Report in 2012 recognised that dementia is a global health challenge and called on countries to recognise this challenge and include dementia in public health planning.

Alzheimer's Society, 2015

The global increase of people with dementia, means our building design of tomorrow needs to be future proofed. Implementing dementia friendly environments will be more sustainable and beneficial in the longer term, ensuring flexibility in design and prolonging the life cycle of a building. By providing dementia-friendly spaces through good design, there is real opportunity to make a significant difference and ensure the right care and support is available.

As with many other interior elements, flooring plays a significant part in a dementia-led design with underfoot safety and aesthetics working hand in hand for physical and mental wellbeing.

“Flooring can help promote a more positive and inclusive environment to those living with dementia and encourage reduced stress and anxiety.”

Professor Marcus Ormerod
University of Salford

Polyflor NPD with Dementia in mind

Dementia Action Alliance

Polyflor is a member of the Dementia Action Alliance, which is committed to transforming the lives of those living with dementia in the UK. This means:

- Polyflor has an action plan of commitment to improve outcomes for people living with dementia in terms of support activity to the community.
- A 'Working to become Dementia Friendly' logo is featured on appropriate literature.
- A dementia friendly community is a city, town or village where people with dementia are understood, respected, supported and confident they can contribute to community life.

International Dementia Design Network

Polyflor is a partner of the International Dementia Design Network, hosted by

the University of Salford. Polyflor has an objective to continually offer products that can contribute to a positive interior environment and make the experience of the person living with dementia a more comfortable one, adding to their quality of life whether at home or in care. Find out more about the DAA at www.dementiaaction.org.uk

Dementia Services Development Centre (dsdc)

In 2018 Polyflor also joined forces with the Dementia Services Development Centre (dsdc) at the University of Stirling to assess the suitability of a number of Polyflor products for specification in dementia friendly environments. The dsdc is an international centre of knowledge and expertise dedicated to improving the lives of people living with dementia which offers a product accreditation scheme.

The dsdc rates products in a tier scale:

1a Flooring within this rating is plain and can be used indiscriminately.

1b Flooring within this rating is semi-plain (minimal texture, fleck, pattern or wood effect with no knots) and in general, can be used throughout.

2 Flooring within this rating has some pattern and needs to be used with caution / consideration.

Society of British and International Design (SBID)

Our research into dementia-friendly flooring and development of products suited to the healthcare sector has been recognised by our invitation to join the SBID Healthcare Design Advisory Council.

This is a collaboration of designers, educators and healthcare and industry professionals looking at how healthcare design can be used to meet the needs and make a real difference to the lives of our growing, ageing community. Flooring is a known factor that can contribute to intelligent and carefully planned healthcare design, with medical experts now recognising the importance of the interior as part of the healing process (SBID, 2015).

Specify Flooring with Dementia in mind

Flooring design and specification can help those with dementia to feel more at ease:

- Use a matt flooring as shiny or glossy surfaces can cause glare and give the illusion of wetness.
- Use a product without sparkle as this can also make the floor look wet.
- Choose a floor without highly contrasting secondary flecks and speckles, as someone living with dementia could see these as something to pick up off the ground. Tonal flecks or solid colour designs are preferable.
- The use of effects that replicate natural outdoor materials such as wood and stone promote a homely, fresh feel which is less clinical than a traditional healthcare environment.
- Many patterns and textures on the floor should be avoided as this can lead to confusion.
- Use flooring with similar tones in adjacent areas as a strong contrast in colour can be perceived as a step. However, a strong contrast between the colour of walls, skirtings, doors and floors, as well as floors and furniture can help those who are visually impaired. A minimum contrast of 30 units LRV (Light Reflectance Value) is recommended between the critical surfaces mentioned above.
- Strong colours with more depth are better than paler shades for those whose colour vision has deteriorated. However, dark colours should be avoided as these could trigger emotions of imprisonment or might be viewed as a hole in the floor by residents.
- Acoustic flooring is recommended to absorb noise and reduce impact sound levels between rooms as noise can cause agitation for patients and residents.



Focus on LCA

Life Cycle Assessment or Analysis (LCA) is a comprehensive way to identify environmental impacts throughout a product or service's life – commonly known as 'cradle to grave'.

When it comes to looking at a product's environmental performance, it is easy to be impressed with headline grabbing statements and emotional communications. Importantly, we must consider scientific fact and rational information when forming opinions, rather than making decisions based on perception. An LCA provides us with the measured and scientific approach we should take when considering environmental factors and places all flooring on a level playing field.

The benefits of using an LCA methodology enables the specifier to have a better understanding of all the environmental impacts and not just one aspect in isolation.



"Is this product better than that product 'for planetary and human health?' It is only at the product level that a valid answer is possible. Only at the product level can we answer questions like: what sort of impacts do the raw materials have; what energy sources are used during manufacture; what are the cleaning, maintenance or replacement schedule requirements; what end of life reuse or recycling options are available, or how ethical is the supply chain?"

"We need to stop genericising 'materials' and start putting individual products and processes under the microscope, making our product selections based on detailed knowledge of the WOL (whole-of-life) impacts of each range and each brand as they compare to one another.

"In our experience of doing just that and hundreds of LCAs for products to be certified, sometimes the results are counter-intuitive. What we think based on commonly accepted norms is more 'sustainable' is demonstrably not always so."

David Baggs,
CEO & Program Director, Global GreenTag International Pty Ltd.
& CEO & Technical Director, Integreco Pty Ltd., a Sustainable Project & Product Consultancy



LCA is a method to measure and evaluate the environmental impacts associated with a product, system or activity, by assessing the energy and materials used and released to the environment over the life cycle.

UK Green Building Council



Featured Image: **Expona Commercial**

Our 6 Step Life Cycle

STEP 6 Recycling

Closing the Loop: We have been recycling our post-production waste vinyl since the 1950s and now collect and recycle post-consumer waste vinyl too. Many of our floor coverings can be reused, but if not, they are all 100% recyclable through the Recofloor take back scheme or other initiatives and outlets.



Recycle

STEP 1 Materials

Responsible Sourcing: Polyflor floor coverings contain a combination of ingredients which are clean, REACH compliant, natural and recycled for a more sustainable product. The materials we use in our flooring are responsibly sourced and audited for our BES 6001 certification.



Materials

STEP 5 In Use

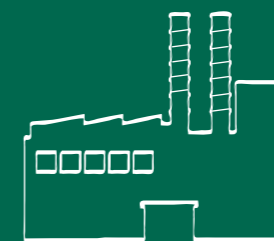
Zero Compromise: Accounting for at least 80% of our flooring's environmental impact, the in use phase is an important element of the life cycle, given the potential 20 to 25-year lifespan. Low maintenance and low VOC, our floor coverings are fit for purpose without compromising on the environment.



In use

STEP 2 Production

Protecting Resources: Our flooring is manufactured with minimal environmental impact. It has a low carbon footprint, because it is energy efficient to manufacture. We apply 'The 3 Rs' as we look to continuously reduce, recycle and reuse resources. Our use of renewable energy has also increased dramatically.



Production

Closed Loop

STEP 4 Installation

Sustainable Fit: Polyflor is reducing environmental impacts associated with installation through healthier adhesives, adhesive-free installation and promoting correct installation for a long-lasting, well performing vinyl floor covering.



Installation

STEP 3 Logistics

Reducing Footprints: We are responsible within the supply chain, and our floor coverings are distributed efficiently through our own well managed fleet and distribution network.



Logistics

We recognise social and environmental impacts of all transportation, therefore adopting appropriate strategies to minimise our carbon footprint.

STEP 1 Materials



We are the only flooring manufacturer to contribute an additional 3.5 points in BREEAM accreditation due to our responsible sourcing



REACH COMPLIANT

Meaning all our products are free from restricted substances



UP TO 85% NATURAL MATERIAL



UP TO 40% RECYCLED MATERIAL

STEP 4 Installation



ADHESIVE FREE FLOORING

A range of options available which can be reused and recycled



TRAINING ACADEMY

Ensuring best practice, Polyflor has provided floor fitting training to 926 industry associates over the last 7 years

Secura
Luxury vinyl sheet flooring

Designatex
Textile backed luxury vinyl sheet flooring

CAMARO LOC
INTERLOCKING LVT COLLECTION

EnCORE RIGID LOC
ACOUSTIC LUXURY VINYL FLOORING

Polysafe QuickLay PUR

EXPONA SIMPLAY

STEP 2 Production

16% LESS ENERGY



to manufacture Polyflor in 2018, lowest figure in 7 years

96% WATER SUPPLY FROM RECYCLED WATER



84% RENEWABLE ENERGY SUPPLY



13%

Reduction in Direct Greenhouse Gas Emissions



32%

Reduction in Indirect Greenhouse Gas Emissions



WE RECYCLED EVEN MORE!



+80%
Packaging waste

+19%
Wood waste

+26%
Liquid waste

+1%
All vinyl waste

+3% TOTAL PRODUCTION WASTE

STEP 3 Logistics



Product wrapped in recycled paper



EFFICIENT FLEET

Distributed in our own fleet of highly efficient HGV's with modern Euro VI engines



2% decrease in fuel consumption (8,261 litres)

1.1% increase on bulk loads

1% reduction of CO₂ consumption (down 7,371kgs on 2017)

372 HGV Journeys removed due to back hauling



50% increase in 'A rated' drivers

STEP 6 Recycling



100% RECYCLABLE

Polyflor vinyl is 100% recyclable meaning our wastage can be diverted from landfill and used in new flooring or other plastic items such as traffic cones



We are a co-founder of Recofloor

4,341 TONNES

of post-consumer waste vinyl collected since 2009.

This equals 36,175 x 20m rolls of Polyflor vinyl, enough to cover:



FREE use of distributor drop-off sites to redirect waste from landfill and recycle flooring waste into new flooring

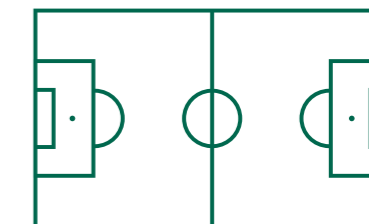


70% cost saving when arranging collections via Recofloor

96 TONNES of recycled glass in Polysafe products

= 192,000 wine bottles

203 FOOTBALL PITCHES



Step 1

Materials

Not all natural materials are necessarily sustainable ones: Depending on how they are harvested or extracted and how they are going to be processed and treated, they can have a higher environmental impact within the life cycle than synthetic materials. This section of the report explains more about vinyl as a material, its benefits and the raw materials included in Polyflor vinyl.



“Sustainable manufacturing starts with the responsible selection of raw materials. Our vinyl flooring products contain up to 85% natural material and are 100% recyclable.

“We strive to use renewable raw materials wherever possible and materials derived from waste streams, including post-consumer waste. All raw materials considered for use in manufacture are subject to rigorous scrutiny, ensuring they are always REACH registered and no materials of concern are ever used.

“Our products are developed with sustainability in mind and are optimised to minimise environmental impact throughout their whole life cycle. As the first resilient flooring manufacturer to achieve third party product certification to BRE BES 6001, we are well placed to give our customers confidence that the products they are offered are responsibly sourced.

“We are committed to manufacturing flooring in accordance with our values, recognising that good material resource management is key in ensuring a sustainable future.”

Bob Smith,
Director of Technical Services, Polyflor Ltd.

About Vinyl

Vinyl is a cost effective multi faceted plastic — a necessity in everyday life due to its functionality and performance across many different applications. The unique composition of vinyl creates an extremely practical and durable flooring, which can have a life span of 20 years plus, if correctly maintained.

Importantly, vinyl is used in medical equipment including blood bags and surgical tubing and is irreplaceable for many of its lifesaving applications. Such products are disposable and as such have come under scrutiny, due to waste volumes. However, the benefit of PVC enables the recycling of non-infectious apparatus - something that is being rolled out across UK hospitals via the RecoMed PVC take-back scheme, a similar initiative to the Recofloor take-back scheme for vinyl waste.

Vinyl is also used in packaging and significantly, in many building products, including flooring; pipes; cables and windows for all construction projects from every day housing renovations to impressive new stadia.

“PVC makes a major contribution to the quality, safety and cost-effectiveness of construction materials, as well as contributing to lower environmental impacts of completed projects. It is the most widely used polymer in building & construction applications and over 60% of Western Europe’s annual PVC production is used in this sector.”

PVC Europe

Through modern manufacturing, vinyl has a low environmental impact and exceptional performance characteristics within a multitude of uses, where no other material could perform as well or cost effectively. Vinyl can be an environmentally sound choice: Over its whole life cycle, vinyl floor covering performs comparably or better than alternative materials across a range of environmental impacts.

Vinyl flooring is exceptionally energy efficient to manufacture, using less energy than other plastics and linoleum. Due to its incredible durability it has a long service life, greatly reducing short-term replacements and subsequent energy consumption. Polyflor products’ ease of maintenance means that energy intensive cleaning is not required and the need for harsh chemical cleansers, polish, strippers and water usage is massively reduced, if needed at all.

As a material, vinyl is ideally suited to being recycled. It is 100% recyclable and can be recycled many times over without losing any of its performance properties. If it is not recycled, vinyl has a high calorific value and may be safely incinerated generating energy recovery. For Polyflor, landfill is seldom used and is the last option, albeit a safe one as vinyl remains chemically inert without producing leachate.

PVC is not a significant contributor of dioxin emissions. Dioxins are toxic chemicals which occur as an unwanted byproduct of some chemical reactions within manufacture (of any product using heating or thermal processing) and during incineration for example.

Power stations and the steel industry are the biggest man-made producers of dioxin emissions, but ‘fun’ items such as fireworks and BBQs also contribute. The annual dioxin concentration of the UK PVC industry is less than 140mg per annum, whereas a single tug boat in the North Sea is 70mg per annum. Dioxins also occur naturally in the environment, for instance with natural fires and wood biodegradation.

Modern, clean PVC is a safe choice and is the most thoroughly researched and tested plastic, meeting all international health and safety standards as per the intended application: In the event of a fire, vinyl is flame retardant due to the chlorine content and once removed from the fire it will self extinguish. In the event of a fire, vinyl flooring typically outperforms linoleum and rubber flooring. It can provide the best slip resistance for underfoot safety and regarding indoor air quality, vinyl characteristically has low VOC emissions.

Key Sustainability Credentials of PVC for use within the construction industry

- 1 Safe in use.
- 2 More variation in uses than any other plastic.
- 3 Best use of natural resources.
- 4 Low energy consumption.
- 5 Low carbon emissions.
- 6 Best cost : performance ratio.
- 7 Excellent energy efficient ratings.
- 8 Excellent BRE ratings.
- 9 Can be recycled into more construction products than any other polymer.
- 10 Comes with a 10 year proven European-wide voluntary commitment.

Polyflor Materials

Polyflor floor coverings use a high percentage of natural materials, e.g. the homogeneous range uses up to 85% natural materials, including the salt content in the polyvinyl chloride resin (polymer) and the calcium carbonate in the filler.



Resource Use: To recognise the need to source & use raw materials in the most appropriate & sustainable manner.

1. PVC Polymer

Polymer is made up of 57% salt (chlorine) and 43% oil (ethylene); salt being one of the world’s most abundant natural resources.

Chlorine has an established place in the natural world: The sea, plants and animals all contain and produce vast quantities of chlorinated molecules. Chlorine is also a chemical used within the manufacture of essential, every day items. For example, 85% of medicines either contain chlorine or use chlorine in the production process. Chlorine is not emitted during the production stage of Polyflor flooring – chlorine is chemically bound within vinyl and remains so during the process and the life of the flooring.

Ethylene comes mainly from gas or oil, but ethylene from biomass is also used. Ethylene is also a natural product, given off by ripening fruit. Only 4% of barrel oil is used for all plastic products globally and vinyl flooring uses only a tiny fraction of this, with most oil used for heating and travel consumption.

2. Filler

The level of fillers used in Polyflor vinyl can account for as much as 74%. Fillers come from calcium carbonate – chalk and limestone, for example – the high abundance of calcium carbonate in the earth’s crust makes it a sustainable material.

3. Plasticisers

Plasticisers are added to our flooring to enhance the product performance characteristics through a range of operational temperatures. Softening the vinyl is important in making it the flexible and versatile product that it is. Polyflor does not use plasticisers which are registered as reprotoxic, endocrine disrupting or carcinogenic. Ortho-phthalates and non-phthalate alternatives, including bio plasticisers are used.

Ensuring that we get the right balance between what is best for product performance, the environment and what our customers want is critical and something which is constantly evolving.

4. Other Materials

In addition to PVC, filler and plasticiser, a small percentage of other ingredients such as stabilisers, pigments and inks are used. All raw materials used by Polyflor are REACH (Registration, Evaluation, Authorisation & restriction of Chemicals) compliant. Polyflor follows the strictest industry regulations ensuring no harmful substances to human health or the environment are included in our vinyl, such as formaldehyde; lead; cadmium; mercury or hexavalent chromium.

Recycled Content

Vinyl flooring is easily recycled, this subsequently minimises the use of raw materials. Polyflor flooring is 100% recyclable and contains up to 40% recycled content, which can be a combination of post-production vinyl, post-consumer vinyl and recycled glass (used with aggregates in Polysafe flooring).

In 2018 we used 96 tonnes of recycled glass in Polysafe products – that’s 192,000 wine bottles.

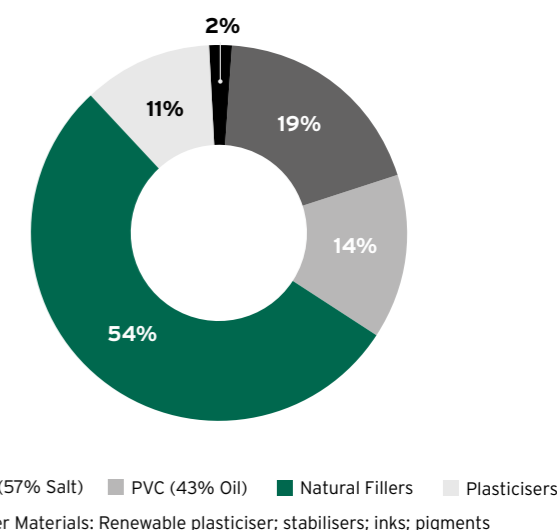
Responsible Sourcing

All raw materials used in the manufacture of Polyflor vinyl flooring are responsibly sourced from the closest possible suppliers and purchased in bulk to minimise the transport impacts. Like Polyflor, our suppliers are ISO 14001 certified or demonstrate robust environmental management.

Polyflor’s products are BES 6001 certified*. This helps us manage our supply chain and so provides our customers with the assurance that our products are responsibly sourced.

*Those which are individually assessed and certified by BRE

Breakdown of materials used in Polyflor Flooring



This is a typical representation for many of our products, raw material quantities vary across ranges. E.G. the filler content is as much as 74% in homogeneous ranges.

Step 2

Production

Sustainability within the Production phase of our product's life cycle incorporates information on resource management, including energy and carbon emissions data, waste management and recycling.



"The flooring sector, as part of the wider construction industry, is a significant consumer of resources and raw materials. It is important that flooring manufacturers recognise this fact and have a good understanding of the effect of their operations on the environment on both a local and global scale. This is why a commitment to continuously improving sustainability performance is essential to build upon the progress already made and protect our environments for the future. Across our collections of flooring during the sourcing and manufacturing phases (Cradle to Gate) we look at maximising the content of both natural sustainable raw materials and recycled content be that from internal or external sources such as Recofloor. Our products are engineered, designed and manufactured with longevity of performance in mind and this has been proven throughout the last 100+ years.

"Our sustainability agenda is incredibly important to Polyflor as a company with a lot of hard work and commitment going into making improvements to our environmental performance. Our strategy is to minimise the environmental impact of our products and operations, always setting ambitious objectives for ourselves to uphold our reputation as a company that prioritises these issues. This sets us apart from competitors and reassures customers that our products are sustainable and that we, as a company, are ethical and responsible in all areas of our business."

Steve Mulholland,
Manufacturing Director, Polyflor Ltd.

Energy Efficiency

There is a direct connection between energy use and the environment. The more energy consumed, the more emissions are released into the atmosphere. Which is why energy efficiency is crucial and why Polyflor sets out to minimise its energy consumption where possible and use renewable energy.



Polyflor Climate Change and Energy: To use energy efficiently in the production of materials and products and minimise the emission of greenhouse gases associated with these processes. To also reduce fossil fuel consumption and utilise renewable sources of energy.

Byproducts that come from traditional methods of power generation, include carbon dioxide, sulfur dioxide and nitrogen oxide. Carbon dioxide, which accounts for the majority of all emissions, is a greenhouse gas. Carbon dioxide absorbs the sun's warmth and keeps heat in our atmosphere when it is released into the air. This 'greenhouse effect' is a naturally occurring phenomenon and required for survival on earth. However, as power plants burn more fuel to create more energy, the extra carbon waste traps too much heat, which can be detrimental. The known effects of greenhouse gas emissions include: Rising temperatures, heat waves and drought; higher sea levels; smog and acid rain; abnormal weather patterns and increased intensity of natural disasters.

In terms of climate change, vinyl has a low impact, which can be observed in EPDs (environmental product declarations).

Vinyl Energy Facts

Vinyl is exceptionally energy efficient to produce and embedded energy is further reduced when recycled material is used in place of raw materials. PVC has a relatively low carbon footprint and to put this into context it gives equivalent carbon dioxide emissions as:

1kg of frosted cornflakes, both = 1.9kg CO₂.
Recycled PVC is just 0.3kg CO₂.

Here are some other every day examples:

1kg Lamb = 14kg CO₂
1kg Cheese = 11kg CO₂
1kg Aluminium = 10kg CO₂

Less energy to produce than other plastics, at least 15% less energy than linoleum and 50% less energy than ceramics, due to their lengthy processes in 'ovens'.

Due to the result of the company's hard work and compliance to its Climate Change and Energy Goal for 2018, Polyflor reduced its energy consumption and CO₂ emissions, despite an upturn in production. Impressively, Polyflor used 3.29 kWh of energy per m² of flooring produced, a 16% decrease on 2017 and the lowest energy figure in 7 years. In 2018, Polyflor also significantly reduced Direct and Indirect Greenhouse Gas Emissions by 13% and 32% respectively, compared to 2017.

Our energy supply continued to positively change and improve our carbon footprint with 84% of the fuel mix for electricity coming from renewable energy, a fantastic increase from 78% in 2017. Over the same period, there was a decrease from 13% to 10% with natural gas.

A selection of Polyflor's ongoing investment in energy-saving equipment and projects – from which, the environment is now reaping the rewards – is highlighted below:

- Replaced old chillers on 2 production lines with energy efficient modern chillers with free cooling technology, which can reduce energy by up to 70%.
- Installed LEAP ESP (low energy abatement plant) on 1 of the production lines.
- More daylight ports were installed to maximise natural lighting.
- Existing lighting was replaced with new LED lighting, operated with sensors, throughout the production halls and warehousing.
- Weekend switch off schedules were issued for Whitefield plants.
- Energy incidents are raised and corrected.
- Objectives, such as air leak, steam trap and thermal imaging surveys are carried out at regular intervals.



32%
Reduction in Indirect
Greenhouse Gas
Emissions



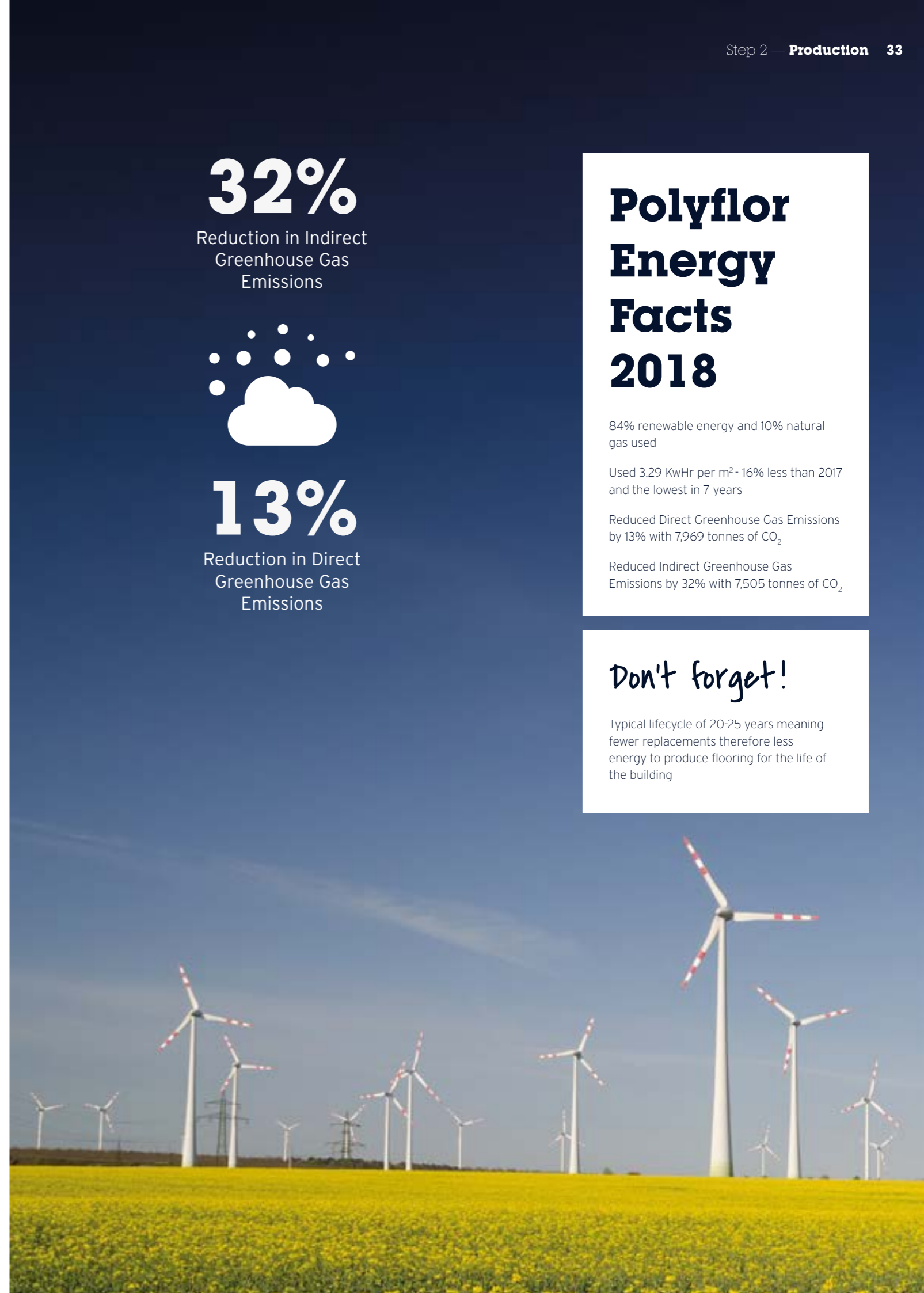
13%
Reduction in Direct
Greenhouse Gas
Emissions

Polyflor Energy Facts 2018

- 84% renewable energy and 10% natural gas used
- Used 3.29 kWh per m² - 16% less than 2017 and the lowest in 7 years
- Reduced Direct Greenhouse Gas Emissions by 13% with 7,969 tonnes of CO₂
- Reduced Indirect Greenhouse Gas Emissions by 32% with 7,505 tonnes of CO₂

Don't forget!

Typical lifecycle of 20-25 years meaning fewer replacements therefore less energy to produce flooring for the life of the building

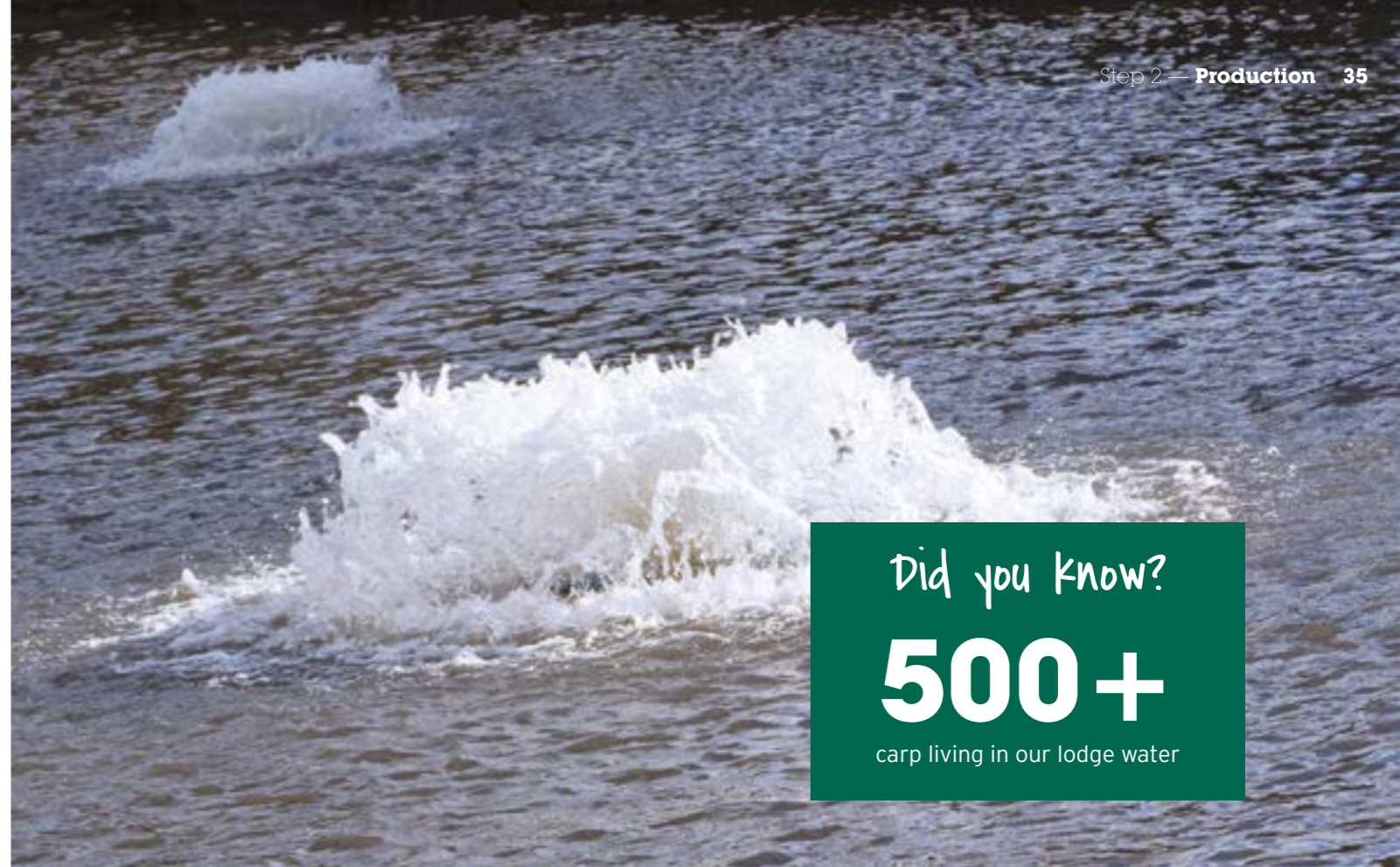


Water Use

Water is a natural resource which must be protected. Water usage can be high in many manufacturing plants, but Polyflor has taken numerous steps to ensure that water usage is minimised and that we continue to adhere to our Trade Effluence License.



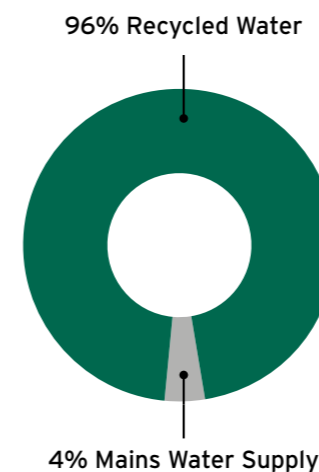
Polyflor Water: To use water efficiently to minimise demand on potable water supplies and treat process water and site run-off effectively to mitigate against pollution risks.



Did you know?
500+
 carp living in our lodge water

At the Whitefield site, rainwater is collected and stored in a designated area known as 'lodge water' and is used for cooling. Following its use, it is returned into the lodge. Lodge water is used to substitute mains water supply, with just 4% of water consumed by manufacturing coming from the mains supply.

Year	m ³
2012	36,752
2013	34,347
2014	34,985
2015	38,279
2016	37,759
2017	43,411
2018	45,870



Water used on site from the mains supply is largely for steam and cooling tower usage and is linked to overall production volumes. Water usage has remained fairly consistent over recent years, but 2018 saw an increase of 2,459m³ compared to 2017.

Across our sites we have many steps in place to minimise water usage throughout production, including the following:

- A filtering system filters lodge water for one of the cooling towers, with the aim of substituting mains water with lodge water for process cooling. This will potentially reduce annual mains water usage by 10%-15%.
- Part of Whitefield's factory's guttering is linked up to an underground water collection tank that has a 22,000 litre water collection. Our target to harvest 30% of the rainwater from the roof has been surpassed and we are now collecting 50%. This water is used on a jet washing facility, but may also be used elsewhere, such as the cooling towers and production line. Based on average rainfall, the system is capable of harvesting 1.3 million litres of water per year.
- Optimisation of steam pressure
- Improvement of the efficiency of pumps and automatic controls
- Regular steam trap surveys
- Optimisation of cooling water temperature

Waste Management

Waste Management continues to be an important part of Polyflor’s ongoing sustainability objectives within its BES 6001 and ISO 14001 management systems. Waste minimisation from the outset is pivotal with recycling being an integral part of Polyflor’s waste management process.



Polyflor Waste Management: To manage all waste streams effectively by adopting the waste reduction hierarchy and minimise waste incinerated and disposed of to landfill without energy or material recovery.

Polyflor Waste Hierarchy

Prevention	Minimise waste created
Preparing for Reuse	Mending or cleaning items for reuse
Recycling	Turning waste into new flooring
Other Use	Sending waste to a secondary recycler
Disposal	Landfill and incineration

In accordance with BES 6001, Polyflor’s objectives to reduce waste to landfill in 2018 included recycling post-production waste and returned post-consumer waste; actively managing and promoting the Recofloor vinyl take-back scheme and applying a Waste Hierarchy to all Polyflor waste streams. Moving waste streams up the hierarchy is important but limiting the potential for waste at the outset will continue to be a priority.

Our vinyl flooring

100%
recyclable

UP TO 40%
recycled material content

25%
average recycled content across ranges

5%
average post-consumer recycled content



Polyflor Waste Facts 2018

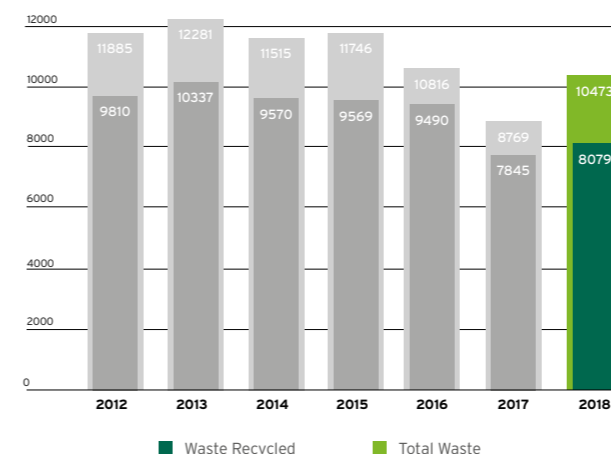
Our total (or gross) waste figure increased by 19% in 2018 compared to 2017. This was a decrease of 3% and 11% against 2016 and 2015 respectively.

Our net waste tonnage figure (waste we were unable to recycle) was up by 11% compared to 2017, but down by 5% and 28% compared to 2016 and 2015 respectively.

Polyflor’s waste volumes increased in 2018, although it would be fair to correlate this to production’s output also increasing. Reflecting both sets of increases, the net waste as a percentage of manufactured vinyl flooring remained the same at 2.5% as 2017 and 2016.



Production Waste Material (Tonnes)



Recycling

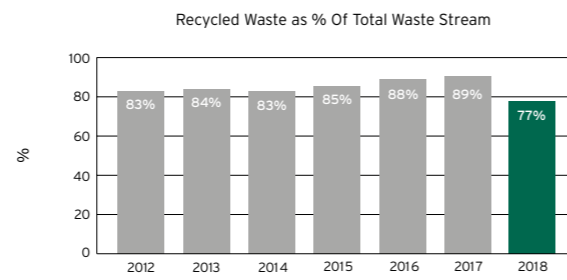
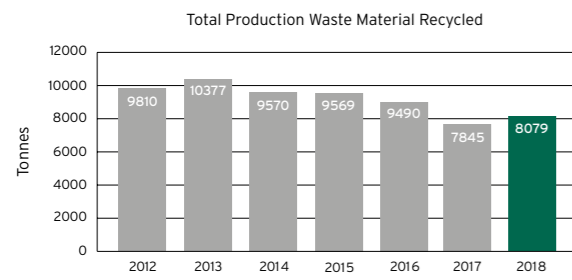
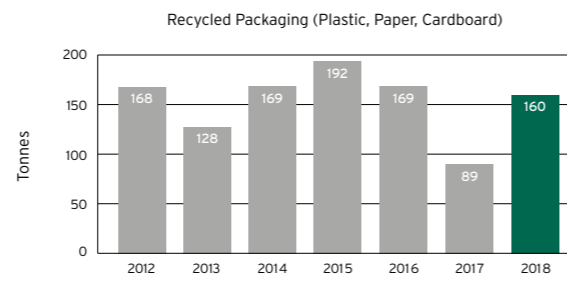
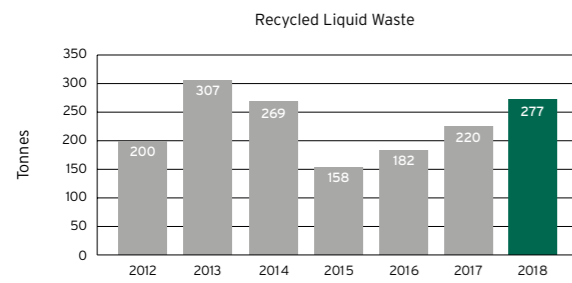
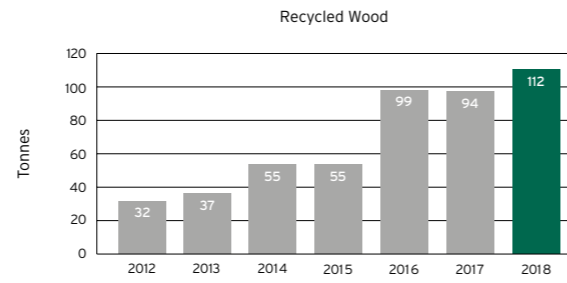
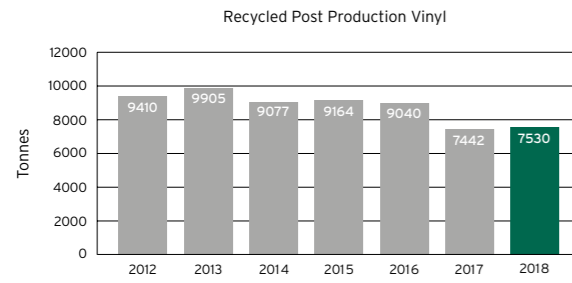
Polyflor has been recycling vinyl since the 1950s, when we pioneered the manufacture of homogeneous flooring. It has always been considered a natural part of our manufacturing process.

Post-production waste vinyl is generated on site from scrap material produced during and after production, this comprises vinyl chippings, clean trims and offcuts as well as recovered dust. We also recycle glass which is post-consumer waste, combined with the aggregates, into many of our Polysafe products. Post-consumer waste is returned to Polyflor via the Recofloor recycling scheme, which operates throughout the UK, Eire, Australia, New Zealand and most recently, Iceland. Post-consumer waste that is recycled back into Polyflor flooring is fully controlled and REACH compliant.

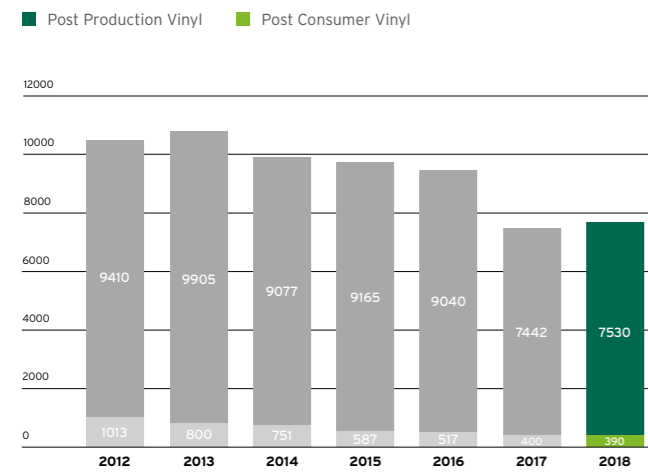
It is evident that there can be few materials better suited to recycling than vinyl flooring. Vinyl is 100% recyclable and can be recycled many times over without losing any of its performance properties. Furthermore, recycled vinyl requires 85% less energy to manufacture than virgin PVC.

It is important to note that as a business with electrical and electronic equipment to dispose of, we are fully compliant with the Waste Electrical and Electronic Equipment (WEEE) Directive and therefore recycle such waste accordingly.

Recycled Production Waste Material (Tonnes)



Recycled Waste Vinyl (Tonnes)



In Summary

2018 remained a positive year for our waste management process. Despite the increase of waste (aligned to the increase in production) Polyflor recycled 3% more production waste than in 2017. Significantly with an 80% increase in packaging; a 19% increase for wood and a 26% increase for liquid waste being recycled. Polyflor also made a great improvement on 2017, which was previously down by 18%, and increased recycling volumes of all vinyl waste by 1%.

Investment is repeatedly made to improve storage and handling facilities for waste on site. This will continue, and recycling will remain an important part of our waste management process.



Step 3

Logistics

Logistics plays an important role in Polyflor flooring's life cycle. This section of the report outlines our performance against the associated environmental impacts, including how we monitor and improve our fleet, driver efficiency and distribution.



"Polyflor always stipulates, when purchasing new vehicles for the distribution fleet, that any replacement vehicle must be the most fuel efficient with lowest emission available. This is irrespective of current legislation requirements resulting in Polyflor becoming early adopters and running cleaner engine vehicles before the legislation deadline.

"Polyflor operates Euro VI emission standard vehicles which produce the lowest Nitrogen Oxide (NOx) levels available, using both MAN's EGR (Exhaust Gas Recirculation) and SCR (Selective Catalyst Reduction).

"Our environmental impact is further reduced through effective tyre servicing and maintenance: Tyre pressure plays an important role in this. Around 30% of fuel consumption can be attributed to truck tyres. Therefore, we aim to maximise tyre life and reduce the amount of new tyres purchased, plus tyres that have a low remaining tread depth or have been regrooved are more fuel efficient than brand new tyres."

Dave Southern,
Operations Director, Polyflor Ltd.

Transport & Logistics

The efficient distribution of our products is imperative to our customers. It is important that we achieve this whilst acting responsibly within the supply chain and minimising our carbon footprint.



Transport Impact: To recognise the social and environmental impacts of all transportation and the need to adopt appropriate strategies to reduce adverse impacts, including but not limited to: i) Fuel usage / efficiency; ii) Normal emissions to air, land and water; iii) Accidental emissions to air, land and water; iv) Noise; v) Packaging.

Packaging

Polyflor flooring is packed in the most effective manner to provide necessary protection, whilst minimising waste. Recycling of various elements of our packaging waste is organised on site, with recycled packaging used where possible. Ongoing objectives for BES 6001 include assessing current and new packaging to ensure it has the best fit in terms of recycled content and recyclability, as well as minimising double wrapping or potential for damage.



Warehousing

Polyflor has 3 warehouse units to optimise stock handling for greater supply chain efficiency. At these sites, energy efficient LED lighting has been installed to reduce environmental impact. Polyflor recently replaced its diesel forklift trucks with energy efficient electric ones, which are reducing CO₂ emissions by 56 tonnes per year. Added benefits of our new forklift trucks also include being cleaner and quieter, for improved air quality and reduced noise pollution on and around the sites.



Transportation

Polyflor operates its own transport fleet in the UK which is frequently maintained and updated to ensure the most fuel-efficient vehicles are used. As such, all Polyflor HGVs have modern Euro VI engines. In addition to improving the HGV fleet, further reductions of the fleet's environmental impact are achievable through driver efficiencies, using the shortest routes possible and increasing bulk loading and backhauling volumes. Alternative transport methodologies and technology are constantly reviewed.



Distribution Network

As a UK manufacturer, Polyflor distributes product from its central distribution centre in the North West of England through a network of distributors throughout the UK and around the world - responsible for regional and local delivery. This model ensures efficiency through the transportation of full, bulk loads.



2018 Overview

Polyflor continued to perform well in relation to logistical operations and will continue to do so in line with ongoing BES 6001 and ISO 14001 environmental objectives. These objectives are reinforced within UK Transport Planning - all personnel within the department are conversant with SEMP 3, Schedule of Requirements for Transport Procedures and the Reduction of Transport Impacts.

In line with these objectives, Polyflor successfully decreased its carbon emissions from 1,278,506 kgs in 2017 to 1,272,135 kgs - reasons are outlined below. As with all our sustainability goals, we will endeavor to improve and further reduce our carbon emissions in the future.

Monitoring our Fleet & Logistics

The 20 vehicles in Polyflor's fleet travelled 1,675,738 kilometers and used 477,863 litres of fuel. Compared to 2017, the fleet travelled an extra 15,887 kilometers, although fuel consumption decreased by 2% or 8,261 litres.

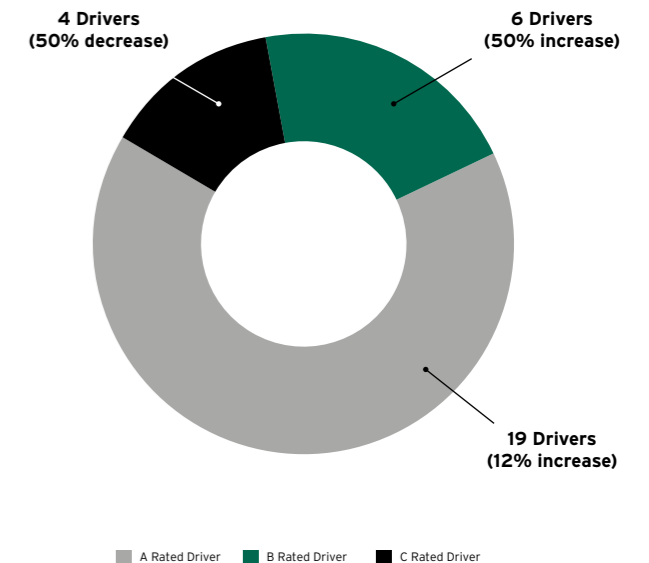
Factors positively affecting our performance in 2018 included a 1.1% increase on bulk load orders which resulted in more efficient journeys being made, compared to 2017. Polyflor's backhaul operation removed 372 HGV journeys from the road network in 2018, a decrease of 125 backloads against 2017. However, we increased supplier collections by 62% in 2018.

The telematics function within the Polyflor HGV fleet monitored and assessed vehicle and driver efficiencies. Renewing all the fleet to Euro VI engines, meant that changes to the telematics reporting criteria were implemented to improve miles per gallon. This was visibly beneficial with our reduced fuel and CO₂.

Monitoring our Drivers

As part of the telematics function, Driver CPC Training and MAN Driver Training were used to facilitate Polyflor's driver assessment process. In 2018 our drivers significantly improved their scores on the MAN KPI system, with drivers overall KPI rating achieving a higher B Rating. Interestingly, 50% more achieved an A Rating and 50% less scored a C Rating than the previous year:

2018 drivers' scores



A benefit of vinyl flooring being much lighter than other flooring materials produces a positive outcome in transit, reducing fuel consumption.

Based on the new emissions levels, it would take over thirty Euro VI engines to create the same NOx levels as one Euro 0 engine from 1993.

CE Mark

As a manufacturer of vinyl flooring it is Polyflor’s responsibility to clearly label its product with the CE Mark and declare conformity with all of the legal requirements to achieve CE marking. Polyflor is therefore ensuring the validity for that product to be sold throughout the European Economic Area (EEA).



CE Marking is the symbol shown here. The letters ‘CE’ are the abbreviation of the French phrase ‘Conformité Européene’, which literally means ‘European Conformity’. The original ‘EC Mark’ was officially replaced by ‘CE Marking’ in the Directive 93/68/EEC in 1993. ‘CE Marking’ is a mandatory conformity marking for certain products sold within the EEA and is included within packaging and literature.

Once the product is placed on the market with a CE mark the manufacturer must issue and sign a Declaration of Performance, made available in the official language(s) of the member state into which the product is intended to be sold. The CE mark must be affixed visibly, legibly and indelibly before the product is placed on the market.

EN 14041, the European standard relevant to the CE mark for floor coverings, has been adopted and is now legally binding. Essential characteristics specified within EN 14041 include:

- Reaction to fire
- Content of dangerous substances
- Emission of dangerous substances into indoor air
- Water tightness
- Slip resistance (EN 13893)
- Electrical behaviour
- Thermal resistance (thermal conductivity)

	James Halstead PLC, Hollinhurst Road, Radcliffe, Manchester, M26 1JN, United Kingdom
14	EFL-DoP
	EN 14041
	0338
	For use as floor covering in buildings
	www.polyflor.com



Featured Image: Expona EnCore

Step 4

Installation

Installation plays a big part in the sustainability of a vinyl flooring's life cycle. This section of the report outlines what Polyflor is doing to reduce environmental impacts associated with installation, including healthier adhesives; adhesive-free installation and the importance of correct installation for a long-lasting, well performing vinyl floor covering.



"Installation is another aspect of environmental consideration Polyflor takes very seriously. We work closely with the leading adhesives manufacturers and constantly evaluate ways to improve installation.

"We also believe we have a duty of care to properly educate floor fitters on installing our flooring, so it maximises its potential longevity, significantly reducing environmental impact. We have been offering customers installation training since 1992 and over the years we have added to and improved this service, now offering 1 to 4-day training courses at our purpose-built facility."

Anthony Sturgess,
Senior Customer Technical Support Advisor, Polyflor Ltd.

Sustainable Installation

Polyflor continues to develop and improve installation methods for its flooring ranges, with sustainability in mind.



The Built Environment Contribution: To develop “loose lay” products with reduced environmental impact (lack of adhesives) with built in end of life and more sustainable ease of recycling.

We have increased the use of sustainable adhesives and adhesive-free vinyl flooring, such as Expona EnCore, Camaro Loc, Expona Simplay, Secura, Polysafe QuickLay and Designatex. A significant benefit of adhesive-free flooring can potentially lead to product being reused and not just recycled.

With the use of solvent free adhesives across our collection of floor coverings, Polyflor is continually in collaboration with the recommended adhesive manufacturers which offer benefits on the health of the installer, the environment and life cycle of the product. Many of Polyflor’s approved adhesives meet the EC1, EC1 plus and/or Blue Angel certification, this ensures they meet the requirements of LEED and BREEAM.

Polyflor currently offers various training courses at our purpose-built training academy in Manchester. This is aimed at improving

the skill and knowledge sets of installers - this in turn increases the longevity of the floor covering as a quality installation is imperative to ensuring a Polyflor product achieves its expected life cycle. A correct installation facilitates a longer life for the product, reducing repair or renewal costs.

In addition to the training courses Polyflor offers, the Polyflor Technical Information Manual is available on the Polyflor website which relates to BS8203, the installation of resilient floor coverings code of practice. This is a guide on how to install the floor covering to appropriate standards, aimed at enhancing the knowledge of installers, architects etc.

Additional support is also given by our helpful Customer Technical Services Department (tech@polyflor.com)



Polyflor Training Academy

Ensuring that we go one step further as a responsible company, it is important that we go beyond producing quality product and add to our value chain by encouraging best practice throughout the flooring sector.

Correct installation is a crucial to the performance and longevity of Polyflor vinyl flooring. This has significant value, economically and sustainably.

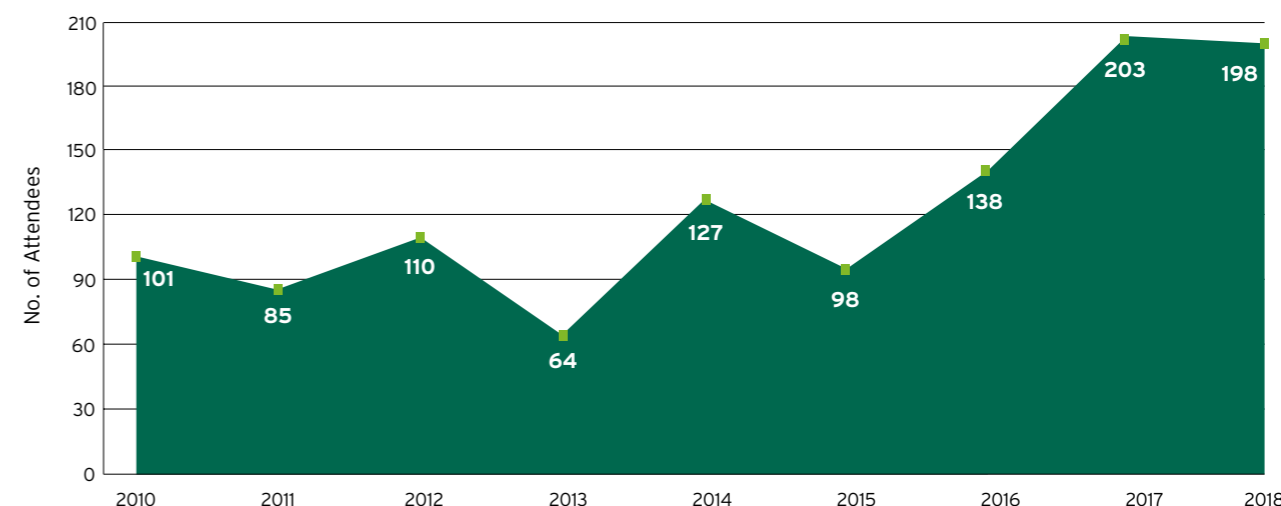
The established Training Academy, based at Polyflor Head Office, Manchester, significantly contributes to the value chain and continued to deliver high quality 1-4 day training courses throughout 2018 at its purpose-built facility.

The comprehensive training courses from Polyflor, are suited to most skill levels, whether a floor layer with previous experience of laying resilient flooring or an apprentice just starting out in the trade. The courses prepare for everyday scenarios and offer a comprehensive insight into laying the perfect vinyl floor; preparing sub-floors; conditioning; using the correct adhesives to setting-out and fitting.

Throughout 2018 Polyflor hosted 24 floor fitting courses on site, training 198 delegates in total. Over the last 8 years Polyflor has provided valuable floor fitting training to 1,124 industry associates.



Polyflor Training Academy attendee figures



Step 5

In Use

The In Use phase accounts for at least 80% of a resilient flooring's environmental impact. That's not to say that materials used or the production process is not important — they still play a part in the whole environmental impact — but the in use phase is an important element of an LCA process.



"My work as an Interior Designer, focuses on the healthcare design sector - mainly designing care homes, assisted living and retirement living projects - as well as being the Chairman of the SBID Healthcare Design Advisory Council. I regularly specify Polyflor flooring within my projects, because I have more flexibility - they have a wide range of products to suit different and varying areas across my projects, from sheet vinyl and safety flooring to LVT.

"The colours and styles are very current, which means that I can create interesting Interiors while remaining totally practical. I also find that Polyflor innovate with new products to suit the ever evolving knowledge gained in Dementia friendly design, allowing designers to use evidence based design more effectively."

Diana Celella, Principal,
The Drawing Room Interiors Ltd.

Fit for Purpose

Choosing an environmentally preferable product from Polyflor means zero compromise in the function of the product.

- Positive environmental credentials and benefits are built into our flooring
- Other elements, whether underfoot safety, hygiene, ease of maintenance, durability or aesthetics work hand in glove with the environmental performance of the product

The In Use phase is therefore a key consideration for Polyflor, ensuring product is not only stylish but designed with the latest standards and requirements in mind. Polyflor flooring is functional, practical and safe for human and environmental health.

The majority of Polyflor 2.0mm floorcoverings obtain the highest Use Area Classification of 23/34/43 to EN 685, making them suitable for heavy domestic, very heavy commercial and heavy or light industrial use. In comparison, a greater thickness is required for linoleum to achieve a similar recommendation, but even at 2.5mm thick it is not recommended for class 43 areas. Under the Agrément (UPEC) system only 3.2mm thick linoleum had the same wearability as most of the accredited Polyflor products.

Polyflor vinyl floorcoverings are also exceptionally durable with a lifespan of 20-25 years, if suitably maintained. Although in many instances it has been known to last much longer than this: Polyflor Standard XL was installed in 1974 at Palmerston North Hospital, New Zealand, where it still looks great today!

“I have been the facility manager at Palmerston North Hospital for 36 years, having worked there my whole life. I recall Polyflor being installed in 1974 and have looked after it ever since, with no issues – I love it! There are a couple of areas in the hospital where we have replaced the original Polyflor vinyl with new Polyflor, although what used to be the main entrance and walkways are showing no signs of visible wear – these are areas which have had hundreds of thousands of people, wheel beds/chairs, laundry trolleys etc. regularly ‘abuse’ it.”

Ian Stevens, Facility Manager, Palmerston North Hospital, New Zealand

In 1968, 650m² of Polyflor Standard XL in Black Cherry and Mushroom was installed in the George Civic Centre, South Africa, where it has stood the test of time for 50 years and still looks great. In fact, this floor received an award for the ‘Longest Lifespan Installation’ at the South African Flooring Awards in 2014. With great installation and proper maintenance, it is proven just how durable Polyflor vinyl flooring is.

Effective maintenance and longevity are elements of the product’s lifecycle that Polyflor is keen to constantly develop and improve. So much so, Polyflor offers a Floor Cleaning & Maintenance Course to promote sustainable cleaning processes and educate how to maximise Polyflor floor coverings’ longevity.

Another of vinyl’s strengths is its much greater resistance to water, whereas many alternative materials are not suitable for use in areas where there can be the extensive contact with water. Vinyl is impervious and can be thermally welded with the joints actually fused together and is inherently more flexible and easily self-cured. This flexibility also means that vinyl has much better recovery from indentation.

At Polyflor we are clear in our belief that our customers don’t need to compromise on performance, choice or budget in order to use products with the lowest environmental impact.



George Civic Centre, South Africa

Safety Performance

Health & safety within the environment is an important factor to consider when selecting a floor covering, particularly with key concerns surrounding slips and trips and also fire performance.

Sustainable Slip Resistance

Polyflor safety flooring can be used in a variety of internal use areas and this also includes locations where hazards are potentially much higher, for instance in kitchens, stairwells and showers where slipping is likely if incorrect flooring is specified and where the consequences of doing so are the most dangerous.

Polysafe flooring is fully compliant with both Health and Safety Executive (HSE) and UK Slip Group Guidelines, offering sustainable wet slip resistance. Using the portable Pendulum Test machine which is advocated by the HSE to measure slip resistance, Polysafe ranges all meet a value in the wet of least 36+, thereby achieving a low slip potential. The Pendulum is the accepted test to denote a floor’s classification as a safety floor rather than relying purely on the ex-factory R values offered by the Ramp Test. Meeting the European standard for particle based safety flooring – EN 13845, all Polysafe ranges pass the 50,000 cycles abrasion test to the standard, ensuring longevity of slip resistant performance. Ranges are also independently assessed by the British Board of Agrément to provide an assurance of performance for the guaranteed life.

The use of Polysafe flooring helps to reduce the potential for accidents and injuries due to its slip resistance properties. The particles contained within the full performance layer of the product create foot to floor contact in wet conditions and are made up of a combination of aggregates including quartz, aluminium oxide, silicon carbide and recycled glass. Polysafe’s distinctive surface emboss also

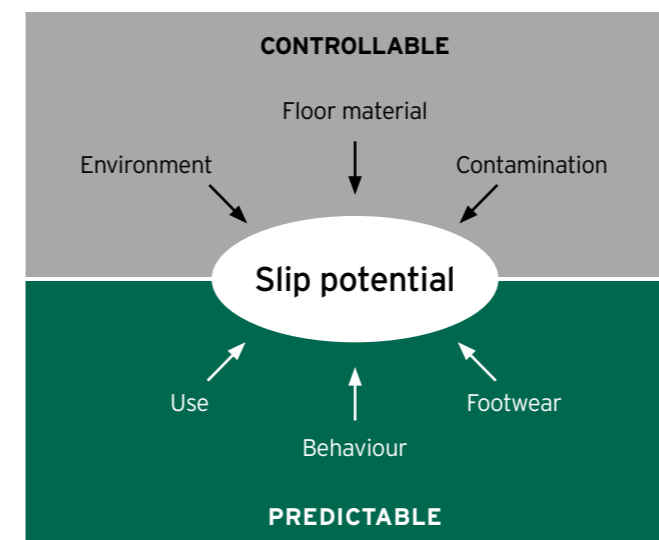
combines with these particles to provide the required roughness to ensure continual friction in wet areas. All recent additions to the Polysafe portfolio meet all the usual Polysafe credentials but include particles that are carborundum-free and virtually invisible once installed to ensure both a high clarity and safe surface.

For Polysafe, design and functionality go hand in hand with ease of cleaning and most ranges in the collection featuring the exclusive Polysafe PUR maintenance enhancement to provide superior cleaning benefits and the optimum in appearance retention.

Fire Performance

Vinyl is engineered to provide the best fire performance characteristics of all resilient flooring materials. Vinyl flooring is slow to ignite in a fire compared to other materials – the chlorine content makes it flame retardant. In fact, a fire which is large enough to ignite vinyl would have already produced fatal levels of carbon monoxide from other burning materials before any danger from burning vinyl flooring.

Regarding fire safety classification, vinyl flooring typically outperforms linoleum, achieving class Bfl to EN 13501-1 (8kw/m or greater) with linoleum achieving class Cfl to EN 13501-1 (4.5kw/m or greater).



Slips and Trips

According to HSE research:

- Slips and trips are the single most common cause of major injuries in the UK workplace, accounting for 1 in 3 major injuries every year.
- Over 8,500 major injuries are suffered each year at a cost to the economy of £750 million each year.
- A cost of £512 million is felt by employers in lost production and other costs each year.

Low Maintenance

Ease of maintenance has always been a key criterion in the selection of any type of flooring. Clients will wish for their floor covering to remain in excellent condition throughout its life and for the cleaning process to be as cost-effective and straightforward as possible.

Market leading low maintenance

A poor maintenance regime damages aesthetics, impairs performance, shortens the durability and creates hygiene problems in critical areas. The in-use phase of the resilient flooring life cycle accounts for at least 80% of its environmental impact, given Polyflor floor covering's potential 20-25 year life span. Therefore this can be greatly affected.

In recognition of this, Polyflor provides low maintenance options throughout the product portfolio. Our easy to clean PU and PUR ranges ensure that use of polish, water, strippers and chemical cleansers are significantly reduced and thus contribute to significant maintenance cost savings for the life of the floor.

All new ranges launched with market leading maintenance and environmental benefits built in and existing ranges have had these benefits added. Continuously improving technologies enables flooring to raise the standard in terms of durability, maintenance and performance, sought by the customer.

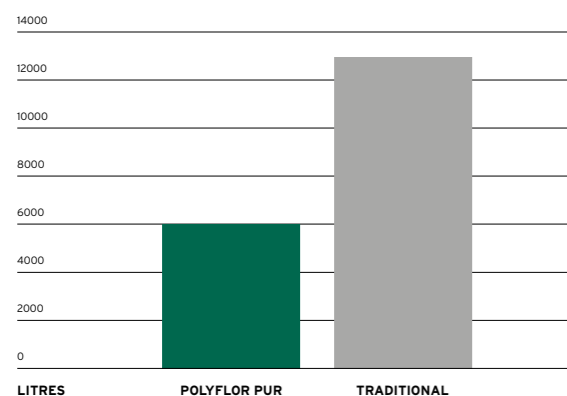
All Polyflor products are designed with low maintenance features.

- PUR reinforcement is cross-linked and UV cured for superior cleaning benefits, enhanced protection and optimum appearance retention.
- Environmentally sustainable using less energy, polish, water and cleansing chemicals.
- Polyflor homogeneous PUR is polish free for life and Polysafe PUR should never be polished.
- Polysafe PUR achieves superior cleaning benefits and facilitates easier soil release, whilst enabling optimum appearance retention.
- Economically sustainable, with 48% to 60% maintenance cost savings over a 20+ year life when compared to untreated vinyl flooring.*

*48% cost saving for smooth PUR ranges and 60% for Polysafe PUR ranges.

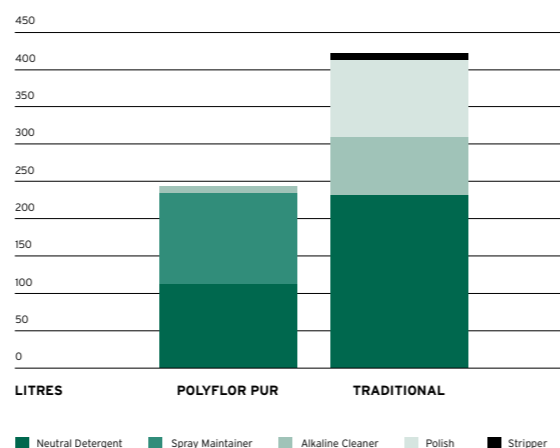
55% less water

WATER USAGE 1 year 1000m² PUR vs Traditional vinyl



Polish free for life

CHEMICAL USAGE 1 year 1000m² PUR vs Traditional vinyl



The in use phase accounts for at least 80% of a vinyl floor covering's environmental impact

Creating clean & hygienic environments

Vinyl sheet flooring can be welded at the seams, forming an impervious base that facilitates ease of cleaning by eliminating gaps and cracks where dirt can gather.

Polyflor flooring also stands up to the test where hand gel dispensers are housed. Polyflor homogeneous PUR, heterogeneous PUR, LVT PUR and Polysafe safety PUR ranges are compatible for use with the most commonly used alco-based hand gels, some of which have a very high concentration of ethanol.

Discuss this further with our experienced Customer Technical Services Department (tech@polyflor.com).

Floor Cleaning & Maintenance Course

Launched in 2015, Polyflor continued its free, Floor Cleaning & Maintenance Course, aimed at facilities management staff and others in the healthcare, education, housing, retail and commercial sectors. The day-long course aims to educate how to get the best from a Polyflor vinyl floor covering by using the correct cleaning methods and products. Correct maintenance facilitates a longer life, reducing costs and frequency of purchasing new flooring.



"Thank you for inviting us to your factory and training facility. It was great to meet people with not only in depth product knowledge but a passion for what they do. We came away with a better understanding of maintenance which will be invaluable to us and enable our maintenance staff to carry out basic repairs with confidence."

Daniel Neale, Yeovil District Hospital

Air Quality

The VOC emissions of our flooring ranges are all below the very strictly set, accepted levels. Products have been tested by independent laboratories with certificates available upon request.

Indoor Air Quality remains an important topic, but further emphasis has been made on significant contributors such as poor ventilation, moving away from building products such as flooring which can have minimal to no VOC emissions.

A recent report, 'Every Breath We Take: the lifelong impact of air pollution', by the Royal College of Physicians (RCP) and the Royal College of Paediatrics and Child Health (RCPCH), warns of hidden dangers that everyday products such as personal hygiene, DIY, cleaning, faulty boilers, fly sprays and even air fresheners contribute to poor indoor air quality.

Dr Andrew Goddard, the Royal College of Physicians lead for the report, said: "Taking action to tackle air pollution in the UK will reduce the pain and suffering for many people with long term chronic health conditions, not to mention lessening the long term demands on our NHS."

Our flooring ranges have passed key international standards, but we continuously look to reformulate our ranges to ensure their VOC emissions are kept to the lowest levels achievable. Polyflor ranges have undergone many independent and rigorous VOC tests and have approval certification for the following: AgBB; Swedish B.P.D (FLEC test); Finland M1 test; Afsset A+ and FloorScore®. The most recent test method by Eurofins, is 'Indoor Air Comfort'. This test method is the most comprehensive and stringent within the industry, worldwide, and tests for all known emissions. Polyflor products tested to date

have achieved Indoor Air Comfort Gold. Additionally, Polyflor products conform to health and safety standard EN 14041:2004 via an E1 Declaration, which confirms that formaldehyde is not used in any Polyflor vinyl products.

Polyflor vinyl is favoured for its superior 'cleanability' over other flooring products and is used in the strictest of hygiene zones throughout hospitals. An additional benefit of Polyflor's low maintenance PUR products is the minimised VOC emissions from reduced cleaning chemicals.

Along with positive VOC test results there is no evidence to suggest that vinyl flooring contributes to common allergies such as asthma or dust allergies. It is non-shedding, where most allergies are caused by airborne dust (clean room test certification for non-shedding is available on most ranges).

Indoor air quality should be considered when selecting building products and for the reasons provided, Polyflor vinyl flooring makes a significant contribution towards creating indoor environments with very low VOC emissions: Low VOC emissions is a prerequisite of the WELL Building Standard™. Our certified products will also contribute towards the Health & Wellbeing (HEA O2) Credit on a BREEAM® project, the EQ Credit: Low Emitting Materials on a LEED® project and points on the IEQ-VOC section of a Green Star® project.

- No negative contribution to indoor air quality.
- Passed all the most stringent international VOC emissions tests, including Indoor Air Comfort Gold, FloorScore®, M1 and Afsset.
- E1 Declaration conformance to EN 14041:2004.
- Reduced VOC emissions by low maintenance routine (less cleaning chemicals).
- Meets WELL Building Standard®.
- Contributes to BREEAM®, LEED®, and Green Star® projects.



Featured Image: **Colonia**

Step 6

Recycling

Since the 1950s, Polyflor has been recycling its post-production waste vinyl. This section of the report explains why recycling is so important and how Polyflor is proactively closing the loop, preventing post production and post-consumer waste vinyl from entering the waste stream.

Various schemes are operating in our global markets, which we have directly implemented or have become active members of. Ultimately our goal is to increase our network of recycling initiatives throughout our international markets and further increase the volume of recyclable, clean vinyl and reduce the use of raw materials.



“With the growing awareness of the impact waste is having on our environment, it is vital that manufacturers take responsibility for the material they place on the market. Recofloor is a fantastic example of how the entire supply chain can work together, to provide a solution that is not only practical but also diverts a considerable quantity of material from landfill back into new products.

“Recofloor is driven by Polyflor and another manufacturer, and relies on the engagement of the distributors, specifiers and end users. Through this effective scheme, more post-consumer waste material can be recycled back into their products or repurposed and used in the production of new, non-flooring articles. It is a true example of the circular economy in motion.”

Richard McKinlay,
Head of Circular Economy, Recofloor



Product Stewardship

A concern we all have is that plastic (and any other waste) should not be in our seas and oceans, this has a massive ecological impact and the UK, along with other developed nations must set an example of best practice.

The UK Government has announced its 25-year plan to reduce plastic waste via the following initiatives:

- A pledge to eradicate all avoidable plastic waste in the UK by 2042
- Confirmation of the extension of the 5p charge for plastic carrier bags to all retailers in England
- Government funding for plastics innovation
- A commitment to help developing nations tackle pollution and reduce plastic waste, including through UK aid
- Fruit, vegetables and other fresh food to be sold loose and not in plastic packaging
- A look at the tax system or charges to further reduce the amount of waste created

The vast quantity of plastics in our seas come from less developed economies with rudimentary waste management systems. Plastics get into the seas by a number of routes and each route needs to be dealt with separately.

Regarding the waste from the West, The British Plastics Federation (BPF) would like to see a tougher stance on littering. It is highly doubtful that simply providing alternative materials will reduce littering in the UK, as this is an issue of personal behaviour and attitudes. The types of products entering the marine environment from the UK tend to be from irresponsible littering.

The BPF is very positive to work with the UK government to progress towards a truly circular economy by helping to reduce littering, increasing recycling infrastructure, ensuring 'on the go' food and drink packaging is captured for recycling and encouraging design for recyclability and the use of recycled material in new low carbon products.

In cooperation with the European Commission, the European Plastics Industry is aiming to reach a 50% target of plastics waste recycling and reuse and 70% recycling and reuse of plastic packaging by 2040. VinylPlus® which has adopted a framework of voluntary commitment to continue and expand existing plastics recycling activities and create additional circularity platforms, will be involved in initiatives. A strong commitment to meeting the outlined targets and full cooperation from stakeholders and the entire plastics value chain will be necessary.

Sources: BPF statement & European Plastics Industry press release. Industry targets are listed in the document, "The European Plastics Industry Circular Economy Voluntary Commitments Towards 50% Plastics Waste Recycling".

Polyflor is fully committed to the recycling of its post production waste and its post consumer waste, supporting voluntary industry-wide commitments. We are active members of Recovynyl, a scheme which provides financial incentives to support the collection of PVC waste from the non-regulated PVC waste streams. Recovynyl is also an initiative of VinylPlus®, another European initiative of which Polyflor is a member. VinylPlus® is the new ten-year Voluntary Commitment of the European PVC industry, which looks to tackle all sustainability challenges for PVC. Each of the challenges is based on The Natural Step System, with step one focusing on Controlled-Loop Management. Key objectives for this stage include:

- Recycle 800,000 tonnes per year of PVC by 2020.
- Exact definitions and reporting concept are available.
- Develop and exploit innovative technology to recycle 100,000 tonnes/year of difficult-to-recycle PVC material (within the overall 800,000 tonnes/year recycling target) by 2020.
- Address the issue of legacy additives and deliver a status report within each annual VinylPlus® Progress Report.

In a bid to address and tackle the waste problem within the construction industry, Polyflor tackled this head on by becoming a proud funding and founder member of Recofloor, the waste vinyl flooring recycling scheme which is available throughout the UK and also operates across Australia, New Zealand and Iceland.

By providing an accessible and efficient facility for waste vinyl to be reclaimed and recycled, Recofloor helps prevent post consumer waste from going to landfill and contributes to Polyflor's value chain.

In addition to this, Polyflor also uses recycled glass, which is post-consumer waste combined with the aggregates into many of the Polysafe ranges. In 2018 96 tonnes of recycled glass went into Polysafe products - that's 192,000 wine bottles.

Did you know?

96 tonnes

of recycled glass went into Polysafe products in 2018



That's the equivalent of

192,000
wine bottles



recovynyl^{plus}

vinyl^{plus}

Recofloor[™]
Vinyl Take-Back Scheme

The Circular Economy Package

The Circular Economy Package has introduced new European regulation to recycle 70% of waste and to decrease landfill by targets of 30% and 50% in 2020 and 2025 respectively. It is expected that landfill bans for recyclable waste will be binding by 2025.

In the Future

Polyflor will stay committed to recycling end of life vinyl through VinylPlus® and the Recofloor scheme. We will also continue to invest significantly in the systems for collection, sorting, granulation and storage to ensure capacity and capability for dealing with the anticipated growth in the volumes of post-consumer waste we recycle.

International Schemes

At present, our collections predominantly come from within the UK where transport to our factory is straightforward, using the same delivery vehicles as they return to site. In international markets there is progress in recycling, even where distances are large, and logistics of any recycling operation are more complex. National legislation and local attitudes also play a major part in the implementation and success of recycling.

Scandinavia

A long history in Scandinavia of recycling, assisted by legislation to ensure waste is segregated on site, means there is a higher volume of post installation waste. In Norway and Sweden, Polyflor uses established schemes, to collect and recover vinyl waste from site. This material can be delivered to Polyflor on return transport for recycling, but typically (and more practically) the waste is sent to other local vinyl flooring manufacturers for them to recycle into new flooring. In Germany the AgPR (Arbeitsgemeinschaft PVC-Bodenbelag) - www.agpr.de - vinyl recycling facility has been in use for a number of years, offering an outlet for post installation vinyl waste for many manufacturers and contractors. This waste is then supplied to various vinyl flooring manufacturers in Europe, including Polyflor.

France

As a member of Kaléi (Entreprises de Revêtements Techniques et Décoratifs) - www.kalei-services.org - James Halstead France (Polyflor's French subsidiary company) helps finance the French vinyl flooring recycling scheme, PVC Next, along with four other manufacturers who are Kaléi members. Contractors must first register with PVC Next and at present there are 30 major contractors officially registered with PVC Next. Thereafter, smooth vinyl flooring offcuts and certain uplifted smooth vinyl flooring can be recycled at one of 16 approved collection points throughout the country. By depositing waste material at one of the scheme's professional waste management sites, a variable fee is applied - depending on region - of €40-€50 per m². This is more cost effective than landfill and benefits the contractor by providing them with marketable credentials as well as contributing towards points on LEED, BREEAM and HQE buildings.

South Africa

Polyflor has delivered on the recycling commitments made as a member of the Southern African Vinyl Association (SAVA):

"We have made a firm commitment to increase responsibility and sustainability within the PVC industry as a whole. However, one of the key challenges outlined within this product stewardship programme has been the commitment to increase recycling. We are proud of Polyflor for taking the lead in such an important industry action."

Delanie Bezuidenhout, CEO of SAVA

Following the successful launch of its independent recycling scheme in 2016, Polyflor SA continued its recycling commitments in 2018 and extended to more contractors countrywide, collecting 7 tonnes of material, the same as in 2017. In 2018 there were 10 members with the goal of tripling that in 2019, to help increase the waste volumes recycled. Polyflor SA's recycling initiative was used across some major projects and is currently on site at Dr Pixley Isaka Seme Hospital and Ngwelezane Hospital in KwaZulu Natal.

Polyflor SA will continue to develop its scheme and provide contractors with specially branded bags for them to place their offcuts in and return to the company's head office, where the waste will be weighed and recorded before it is collected by recyclers.

Recofloor Australia, New Zealand & Iceland

Polyflor Australia and Polyflor New Zealand continue to effectively run the Recofloor collection scheme, 2018 was another good year with 8 new contractors joining the scheme and 18.5 tonnes of waste vinyl flooring being collected - amassing 136.5 tonnes since 2010. The tonnage for 2018 was more than double the total recycled in 2017. This fantastic increase was largely due to more key construction projects using Recofloor, including Kellyville North Public School, Homebush West School, Sydney South West Hospital, Brookvale Community Centre, Moran Health, Regis Aged Care and St Basils Aged Care.

Australia and New Zealand continue to use Recofloor bins made from recyclable material, which can be reused to collect further waste vinyl flooring or recycled. The bins can be sent out to customers to their place of business and once the bins are full they are collected. Alternatively, waste vinyl flooring can be taken to one of the 5 drop-off sites in Australia and 2 drop-off sites in New Zealand. Via empty containers, the collected waste material is shipped back to Polyflor in the UK and recycled accordingly, which logistically is relatively straight forward.

"The Recofloor Programme assists in a number of ways. OzFlor was the first Contractor in Australia to take up the Recofloor Programme and we have found that during large project negotiations, the Environmental benefits of this scheme have often got us over the line. With the vinyl waste being 100% recyclable, it can also contribute to a building's GreenStar rating. The bins don't take up too much space in my warehouse and I would highly recommend this programme to anyone wanting to reduce vinyl waste costs and excess landfill."

Brett Grogan, Managing Director, OzFlor Pty Ltd., Australia

Polyflor's main Icelandic distributor, Golfefnavaal and Recofloor continued to collaborate, collecting offcuts and smooth uplifted waste vinyl flooring. In 2018, 3 bulk bags with around 750kgs or 240m² of waste Polyflor were collected from a hospital project and returned to the UK for recycling at Polyflor.



Recofloor™

Although the flooring industry is not bound by law to recycle waste, Polyflor is actively seeking to recover and recycle its post consumer waste vinyl flooring to minimise the flooring industry’s environmental impact and close the loop of our products’ life cycles.

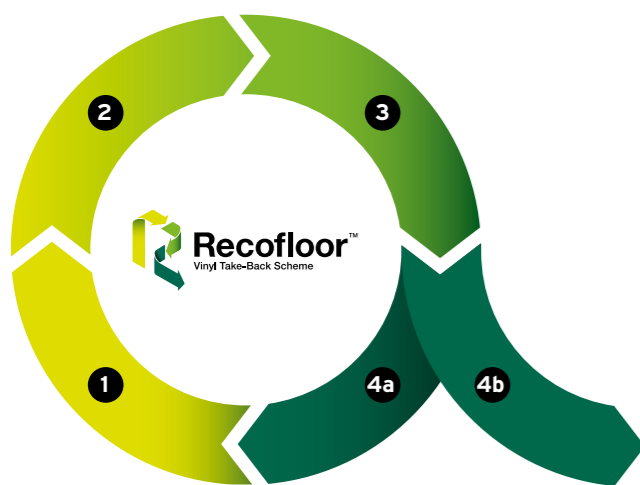
About Recofloor

- Polyflor is a cofounding and funding member of Recofloor, the industry’s leading vinyl take-back scheme for recycling end of life post consumer vinyl flooring in the UK and EIRE.
- Polyflor invests a great deal into Recofloor and helps drive its success by continually promoting it and engaging with customers.
- Through Recofloor, Polyflor can recycle smooth (homogeneous, heterogeneous, LVT, loose lay) and safety installation offcuts, smooth uplifted flooring and old stock roll-ends and samples
- This material is recovered and recycled into new flooring or other useful products such as traffic cones.
- Customers must register with the scheme and then request smaller or larger bulk bags to gather their waste vinyl.

- Regardless of waste material volumes, there is an outlet accessible for everyone:
 - For smaller volumes, drop-off sites at distributors are available at no charge.
 - Larger volumes of waste vinyl can be collected on pallets directly from a live project, on a timed collection, or collected from a contractor’s site. There are fees for collections, but compared to the average landfill cost of £120 per tonne these nominal fees can save up to 70%.

For more information go to www.polyflor.com/sustainability

Alternatively contact Recofloor directly on 0161 355 7618 or www.recofloor.org



1. Uplifted flooring or offcuts
2. Placed in bags
3. Collected for recycling
- 4a. Recycled into new flooring
- 4b. Recycled into useful products

Yes Please <input checked="" type="checkbox"/>
Post installation, clean vinyl offcuts (safety and all smooth including LVT)
Old stock vinyl roll-ends & samples (smooth or safety vinyl)
Smooth uplifted flooring - depending on condition and quality

Please ensure all material for collection is as clean as possible

"At the construction site 8% of the material is assumed to be wasted"

BRE Global

"The Recofloor service is very convenient for us, especially for contractors who want to drop off small amounts of flooring and it all helps to save money."

Nathan Campling,
Director, Eden Flooring and Interiors



In the Beginning

A major challenge in the recycling of post-consumer waste was the logistics of retrieving the material, rather than recycling it - recycling for Polyflor is easy and something we have been doing since day one, back in the 1950s. To try and tackle this issue and actively encourage recycling more waste vinyl flooring, a working group was formed in 2007 with all vinyl flooring manufacturers on board, managed and coordinated by a waste management company. Funding for this recycling initiative came from WRAP (Waste & Resources Action Programme). Once the trial period and government funding ceased, members had to review the scheme's future. Polyflor continued to run the scheme with another UK manufacturer and in 2009 Recofloor was formed. As a founding and funding member of Recofloor, Polyflor has helped develop the scheme into the success that it is today - supporting financially, driving the scheme through sales and marketing, as well as logistically supporting with collections, sorting and ultimately recycling.

Recofloor's Progress

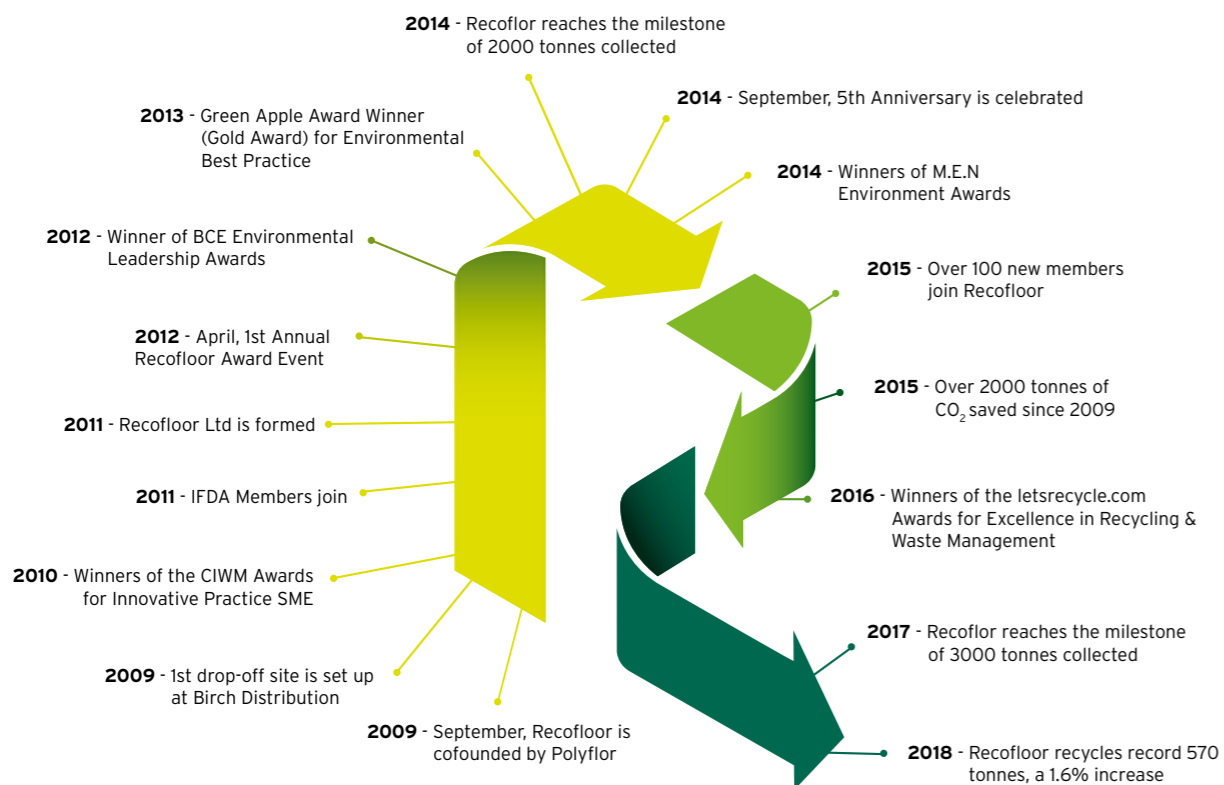
Since 2009 Recofloor has achieved a great deal and is now the industry leading facilitator for efficiently reclaiming vinyl flooring, with 700 members on board today. 2010 was a real turning point for the scheme, which saw Recofloor winning the CIWM (Chartered Institute of Wastes Management) Award for Environmental Excellence in the category of SME Innovative Practice. Since then Recofloor has won a BCE (Business Commitment to the Environment) Premier Award and

the Gold Award in the International Green Apple Environment Awards 2013, for Environmental Best Practice. Recofloor's 'Cost Calculator', was a great initiative and continues to allow contractors to calculate how much it would cost to send their waste to landfill, and importantly the savings they will generate by using Recofloor instead.

Increasing volumes of quality reclaimed vinyl waste for recycling is continuously improving (a challenge has been educating members about the importance of the material they send back through the Recofloor scheme and avoiding contamination, which is not always easy on a busy building site). Volumes are consistently strong, with 4,341 tonnes having been collected since the scheme started in 2009. This volume equals nearly 1,447,000m² or 36,175 x 20m rolls of Polyflor vinyl - that's enough vinyl waste flooring to cover nearly 203 football pitches. This has had a positive impact on CO₂ emissions, saving over 6,945 tonnes of CO₂ - the same as driving around the equator 825 times; taking 1,713 cars off the road or driving 570,872 times around the M60.

Many thanks go to our customers who have embraced and supported this unique scheme. Distributors' involvement has certainly contributed to Recofloor's success. By acting as drop-off sites for their customers, distributors have increased the accessibility of Recofloor making it even easier for contractors to dispose of their waste vinyl flooring and today, there are 60 drop-off sites nationwide. The drop-off sites have also facilitated Recofloor's collection and recycling process. Furthermore, CO₂ emissions have been reduced by minimising needless drop-off and pick-up journeys.

Recofloor Timeline 2009 - 2018



6,945

tonnes of CO₂ saved since 2009.

This equates to...

825

times around the equator in a car

1,713

cars taken off the road

570,872

times around the M60

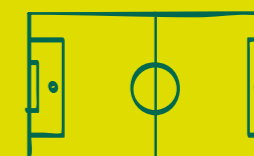
4,341

tonnes of vinyl flooring collected since 2009



That's enough to cover

203



Recofloor in 2018

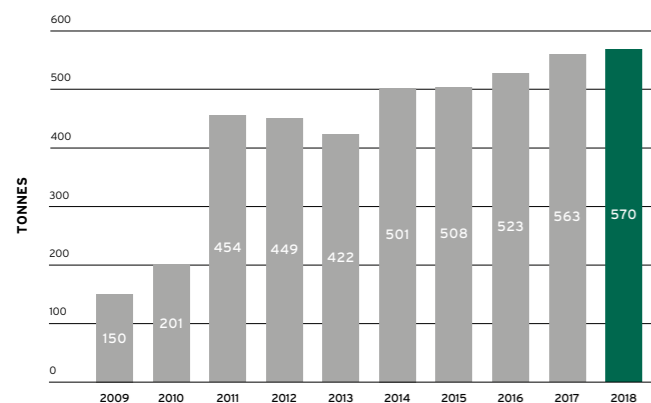
2018 Key Targets

- To collect at least 575 tonnes of flooring
- To recruit at least three new construction projects (where Polyflor and other co-founder's flooring is used)
- To maintain relationships with flooring distributors
- To ensure that specification guides are understood and adhered to by Recofloor collectors

2018 Actual

Recofloor increased on 2017's total tonnage by 1.6% by collecting 570 tonnes, 93% of which was post-consumer offcuts. This tonnage saw a 4% increase in the amount collected from contractors and distributors. There were 8 construction projects recruited in a challenging year for the construction sector (5 more than we had aimed for), and 2 new flooring distributors signed up to the scheme, which was fantastic.

Fig 1: Tonnes Collected 2009-2018



Volumes

Figure 1 shows a steady increase in volumes collected per year by Recofloor since 2009. In 2018 Recofloor collected 570 tonnes, which represents an increase of 1.6% compared to 2017 and 9% compared to 2016.

In 2018 126 registered companies actively participated in Recofloor (6 more than the previous year). This comprised 40 active flooring distributors; 72 Contractors and 8 other companies. It is difficult to say how many participated in total, because we do not have the details of all the companies that drop-off their waste at flooring distributors.

Material Type

Figure 2 shows the volumes of material collected by type. Offcuts from the installation process represent 92.5% of the material collected in 2018, the remaining 7.5% was uplifted flooring, an increase of 2.5% on 2017. 47.5% of the material collected in 2018 was safety flooring offcuts and 45% were smooth flooring offcuts. The collection of safety offcuts increased by 0.5% and smooth offcuts decreased by 2% compared to 2017.

Fig 2: Material Collected by Type 2016-2018

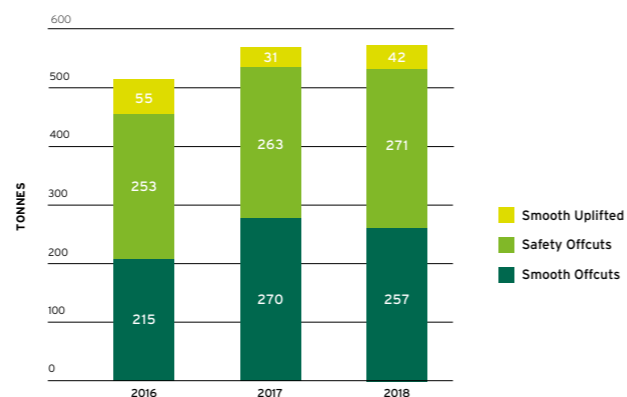


Fig 3: Volume by Type of Site 2016-2018



Tonnage Sources

The main volumes come from collections from flooring distributors and contractors. In 2018 these sectors represented 75.3% of the volumes, a 4.3% rise on tonnages collected from these sectors in 2017.

Figure 3 shows the amount of material collected from each type of site for the past three years.

Flooring distributors and contractors continue to lead the returns with 39.6% and 35.7% respectively. Returns from distributors have risen 4% in comparison to 2017 which is extremely promising for the growth of collections from distributors. In part, this could be attributed to the increased awareness generated by the Grand Tour in 2016, and increased marketing awareness of the benefits of the scheme for distributors and drop-off site users. Collections from contractors have also risen by 2% compared to 2017. The remaining 24.7% comes from volumes collected from training schools, samples and collections from modular building manufacturers, which we term as 'other' tonnage.

2018 Roundup

Collections & Logistics

570

tonnes of post-consumer vinyl flooring were collected

93%

of material collected was post-installation offcuts

7%

was uplifted flooring

New members

11

drop-off site users

25

Contractors

2

Flooring Distributors

Marketing

Held a successful Football-themed Recofloor Awards event at Anfield Football Club in April with 61 attendees.

Ran a photography campaign for winners of the 2018 Recofloor Awards.

Organised and attended 7 visits to distributors for bacon butty events during the summer months, plus attended 1 trade member event.

Successfully delivered the Red-Letter Day September Promotion.

Increased social media participation such as visits to the website, Twitter and Facebook engagement.

2019 Key Targets

- To collect at least 590 tonnes of flooring
- To deliver a 10th anniversary programme of events
- To use the increased promotion of the 10th anniversary to increase collector base
- To continue to push Recofloor in the construction sector
- Boost awareness of the scheme outside the flooring sector
- Continue multi-touch marketing to increase Recofloor's brand awareness amongst the flooring chain
- To ensure that specification guidelines are understood and adhered to by Recofloor collectors

Why Take Part?

- The drop-off sites are free of charge. For non-timed collections and timed collections from live projects there are nominal fees of around £30 and £60 per tonne respectively, which could save our members up to 70% by recycling through Recofloor, rather than landfilling (costing £120 per tonne)
- Recofloor ties in with site waste management requirements
- Certificates of commitment are awarded to impress and gain new contracts

- Recofloor Awards - Gold, Silver and Bronze certificates are issued to members who have significantly recycled, as well as awards for numerous categories such as 'Distributor of the Year'; 'Contractor of the Year' and 'Construction Project of the Year'
- Customers are keen to see their waste flooring recycled
- Recofloor can be specified as an outlet for vinyl waste in tenders
- Could help achieve extra points on BREEAM & LEED assessments

"We've increased the number of collections at Cardiff and Recofloor is very good at responding to our requirements. We encourage our customers to take part and give them free Recofloor sacks to keep their vans and site tidy. They can then drop off waste vinyl at any of our depots - it's a free service."

"It's important to emphasise the benefits because it really is a 'win-win' situation for everybody."

Andy Nichols, Managing Director, 3D Flooring Supplies Ltd

2018 Recofloor Awards

For the 7th year running, the annual awards rewarded members for their hard work and efforts in recycling vinyl waste flooring - it is important to acknowledge our members' commitments. In April 2018, the football-themed awards were held at Liverpool FC's home, Anfield, and hosted by a very enthused England football legend, Kevin Keegan.

“We're ahead of the game!”

Kevin Keegan



WINNERS 2018

Contractor of the Year:

WINNER: Carpets 'N' Carpets Ltd, Treorchy
Highly Commended: Middlesex Flooring Ltd

Distributor of the Year:

WINNER: Birch Distribution, Sheffield
Highly Commended: MCD Kidderminster

Drop-off Site User of the Year:

WINNER: County Contract Flooring, Droitwich
Highly Commended: Skylark Flooring Ltd, Rotherham

Brand Ambassador:

WINNER: S&D Flooring Specialists Ltd, Hull

Project of the Year:

WINNER: Ryjock Flooring, Sheffield
Highly Commended: Middlesex Flooring Ltd

Best Newcomer:

WINNER: MSD Flooring Ltd, Wigan
Highly Commended: Fineweave Carpets Ltd, Reading

Recofloor Champion:

WINNER: Mark Purnell, Fantasy Flooring, Bristol
Highly Commended: Jeff Abbott, Top Floors (East Anglia) Ltd

Greatest Improver:

1st: SW Flooring, Ramsgate
2nd: JDF Flooring, Kenilworth
3rd: The Headlam Group, Gateshead

Longstanding Achievement:

Mayfield Floors, Stockport

Outstanding Achievement:

MCD Kidderminster



“Our founder, my late father Eric immediately saw benefits in the Recofloor scheme and jumped on board from Day One. Recofloor brings many benefits, such as cost savings on disposal and reducing environmental impact. Everyone wants to help with their carbon footprint. As a company, we're proud to say we're doing our part.”

“The scheme has definitely had a direct influence on my company securing a lot of contracts with local authorities and NHS Trusts who are also looking to further their green credentials with their sustainability targets.”

Anthony Francis, Managing Director, Mayfield Flooring

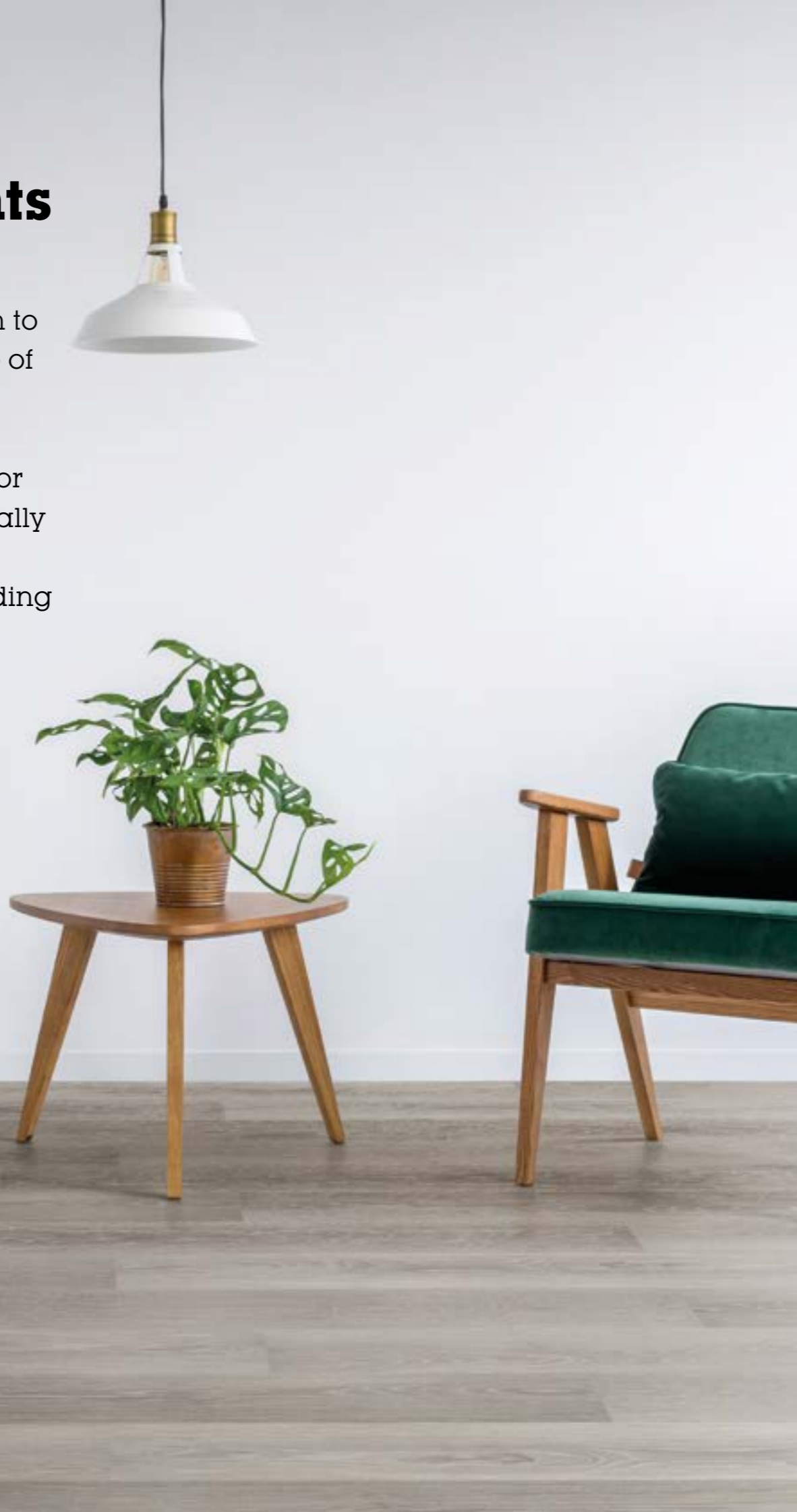
“We're honoured to have won an award for the second year running. On all our projects now, the fitters are getting more and more involved in Recofloor. It's beginning to work!”

Wayne Conlan, Managing Director Ryjock Flooring, Sheffield

Environmental Assessments

Environmental Assessments are crucial for providing specifiers with clear, open information, enabling them to make informed decisions on products and the degree of their impacts to the environment.

Through numerous environmental assessments, Polyflor products continue to prove that they are environmentally sound, have minimal impact on the environment and will contribute positively on project assessments including BREEAM®, LEED® and Green Star®.



“There is a general shift towards more transparency in the construction value chain. This is particularly relevant to environmental impacts for products used in the built environment. Polyflor has shown great leadership by having some of its products assessed using the BRE Environmental Profiles methodology which looks at life cycle environmental impacts. More product data in the public arena will generate more accurate data over time which in turn will lead to better buildings.”

Dr Shamir Ghumra, C. Env, MIOD, FIEMA,
BREEAM Director, BRE

About EPDs

Environmental assessments or 'Green Labels' legitimately help specifiers make informed decisions on the environmental profiles of construction products. Environmental Product Declarations are the next step.

There are many different green labels to choose from worldwide. This proliferation can make it difficult to make a choice and also get the clearest and most up to date environmental information, confusing the global market. Specifiers are ever more discerning over green claims and want reliable, consistent data. With that in mind, the European working group CEN TC 350 created the new standard EN 15804 Sustainability of Construction Works - Environmental Product Declarations (EPD) - with the aim of creating ONE pan European and worldwide harmonised standard for reporting of environmental performance.

- EPDs communicate verifiable, accurate, non-misleading environmental information for products and their applications, expressed in information modules which allow easy organisation and expression of data throughout the life cycle of the product
- The standard provides a way to develop a Type III environmental declaration of construction products and is part of a collection of standards intended to assess the sustainability of construction works. It provides core product category rules (PCR) for the Type III declarations

- EN 15804 creates harmonisation of schemes such as BREEAM (UK), DGNB (Germany), FDES (France) and Green Tag (Australia)
- Since 2013, EPDs are part of the Construction Products' Regulation (CPR)
- EPDs provide a standardised system, preventing barriers to trade
- Our EPDs are available via product specific IBU EPDs, generic ERFMI EPDs and INIES FDES
- The information is reported in the same way across all building products

EPDs provide completely transparent information about Polyflor products and their impact on the environment.

There are 24 environmental indicators within the assessment process of the EPD, which are broken down into the following categories:

- Environmental Impact Indicators
- Resource Indicators
- Waste Indicators
- Output Flow Indicators

Critically the 7 Environmental Impact Indicators include:

- GWP** - Global Warming Potential
- ODP** - Ozone Depletion Potential
- AP** - Acidification Potential
- EP** - Eutrophication Potential
- POCP** - Formation of Potential of Tropospheric Ozone
- ADP** - Abiotic Depletion Potential of non-fossil fuels
- ADP** - Abiotic Depletion Potential of fossil resources

Using EPDs on BREEAM and LEED assessments

A benefit of specifying a product with an EPD is that extra points can be gained on BREEAM and LEED assessments:

- One bonus 'uplift' point can be awarded for the use of one of our ranges where a product specific BRE environmental profile or 3rd party verified EN 15804 (ISO 14025) compliant EPD is available.
- Polyflor ranges can contribute to the LEED v4 score through specific environmental product declarations (EPD), which can provide 1 point; or generic EPDs which may contribute 0.5 points.

Polyflor EN 15804 EPDs

Products can be individually assessed, or generic profiling is available. Polyflor contributes to the EN 15804 generic data set for the creation of ERFMI EPDs and INIES FDES. The following categories all have EPDs and most have FDES:

- EN 10581 PVC Homogeneous
- EN 10582 PVC Heterogeneous (compact)
- EN 651 PVC Heterogeneous (foam backed)
- EN 13845 PVC Safety Flooring
- EN 649 Luxury Vinyl Tiles
- EN 1817 Rubber (smooth)

As well as generic EPDs, Polyflor has product specific EPDs for several LVT product ranges. The datasets used on generic and specific EPDs have been independently verified by Institut Bauen und Umwelt e.V. (IBU) and both generic and product specific EPDs are written to the rules and standards according to EN 15804 and ISO 14025. Polyflor EPDs are listed on systems such as the IBU and DGNB (Deutsche Gesellschaft für Nachhaltiges Bauen e.V. / German Sustainable Building Council) navigator databases.

Products	IBU Product Specific EPD	ERFMI Generic EPD	INIES FDES
SAFETY			
Polysafe Quattro		EPD-ERF-2013611-E	
Polysafe QuickLay PUR		EPD-ERF-2013611-E	
Polysafe Astral PUR		EPD-ERF-2013611-E	
Polysafe Mosaic PUR		EPD-ERF-2013611-E	
Polysafe Vogue Ultra PUR		EPD-ERF-2013611-E	
Polysafe Standard PUR		EPD-ERF-2013611-E	
Polysafe Wood fx PUR		EPD-ERF-2013611-E	
Polysafe Wood fx Acoustix PUR		EPD-ERF-2013611-E	
Polysafe Modena PUR		EPD-ERF-2013611-E	
Polysafe Arena PUR		EPD-ERF-2013611-E	
Polysafe Verona PUR Original		EPD-ERF-2013611-E	
Polysafe Verona PUR Pure Colours		EPD-ERF-2013611-E	
Polysafe Hydro		EPD-ERF-2013611-E	
Polysafe Hydro Evolve		EPD-ERF-2013611-E	
Polysafe Ultima		EPD-ERF-2013611-E	
Polysafe Apex		EPD-ERF-2013611-E	
Polysafe Ecomax		EPD-ERF-2013611-E	
Expona Control PUR		EPD-ERF-2013611-E	
HOMOGENEOUS			
Palettone PUR		EPD-ERF-2013111-E	3-1413:2018
Palettone SD		EPD-ERF-2013111-E	3-1413:2018
Pearlazzo PUR		EPD-ERF-2013111-E	3-1413:2018
2000 PUR		EPD-ERF-2013111-E	3-1413:2018
Classic Mystique PUR		EPD-ERF-2013111-E	3-1413:2018
Prestige PUR		EPD-ERF-2013111-E	3-1413:2018
Standard XL		EPD-ERF-2013111-E	3-1413:2018
XL PU		EPD-ERF-2013111-E	3-1413:2018
Polyflex Plus PU		EPD-ERF-2013111-E	3-1413:2018
Palettone SD		EPD-ERF-2013111-E	3-1413:2018
Polyflor SD		EPD-ERF-2013111-E	3-1413:2018
Finesse SD		EPD-ERF-2013111-E	3-1413:2018
OHMega EC		EPD-ERF-2013111-E	3-1413:2018
Polyflor EC		EPD-ERF-2013111-E	3-1413:2018
Polyflor ROF		EPD-ERF-2013111-E	3-1413:2018
HETEROGENEOUS			
Forest fx PUR		EPD-ERF-2013211-E	3-1407:2018
Expona Flow PUR		EPD-ERF-2013211-E	3-1407:2018
Bloc PUR		EPD-ERF-2013211-E	3-1407:2018
HETEROGENEOUS ACOUSTIC			
Silentflor		EPD-ERF-2013311-E	3-1408:2018
Acoustix Forest fx PUR		EPD-ERF-2013311-E	3-1408:2018
LVS			
Secura PUR		EPD-ERF-2013411-E	
Designatex PUR		EPD-ERF-2013411-E	
LVT			
Expona Simplay	EPD-JHA-20140178-1CA1-EN	EPD-ERF-2013511-E	3-1414:2018
Expona Design PUR	EPD-JHP-2013111-E	EPD-ERF-2013511-E	3-1414:2018
Expona Commercial PUR	EPD-JHP-2013211-E	EPD-ERF-2013511-E	3-1414:2018
Bevel Line PUR		EPD-ERF-2013511-E	3-1414:2018
Camaro PUR		EPD-ERF-2013511-E	3-1414:2018
Camaro Loc PU		EPD-ERF-2013511-E	3-1414:2018
Colonia PUR		EPD-ERF-2013511-E	3-1414:2018
Affinity 255		EPD-ERF-2013511-E	3-1414:2018

About BRE Global

Polyflor's product ranges predominantly have BRE specific ratings and achieve A+ in major use areas such as health and education. Where products have not been individually assessed, BRE generic ratings are available*, again achieving A+ in key areas.

Using a Life Cycle Analysis (LCA) approach over a building life of 60 years, materials are assessed according to their impact on the following criteria:

Climate change – The planet's climate is changing through the increase of 'greenhouse gases', such as carbon dioxide and methane. These gases in the atmosphere are required to prevent our planet from freezing over by trapping heat from the sun's rays. Too much however, creates a greater barrier which absorbs more of the sun's rays and ultimately causes 'global warming'. This is happening at an unnaturally fast rate, largely due to human activity, predominantly caused by burning fossil fuels, deforestation and the vast increase of methane producing cattle.

Water extraction – In some areas water is becoming a scarce resource, so the use of 'new' water (not stored, recirculated or sea water) can cause damage and is therefore an environmental impact measured by the BRE.

Mineral resource extraction – This relates to the extraction of mineral materials, such as metal ores, aggregates and minerals. This is a resource issue caused by mining and quarrying which could prevent availability for future generations.

Stratospheric ozone depletion – Ozone depleting gases cause damage to stratospheric ozone or 'ozone layer', which enables harmful UVB light to penetrate through the filter, hitting the earth's surface.

Human toxicity – The emissions of some substances, such as heavy metals, can have impacts on human health. The BRE assesses levels of toxicity based on tolerable concentrations in air, water, air quality guidelines, tolerable daily intake and acceptable daily intake for human toxicity.

Ecotoxicity to freshwater & land – Environmental toxicity is measured as two separate impacts which examine land and freshwater eco systems. The emissions of some substances, such as heavy metals can have environmental impacts on the ecosystem.

Nuclear waste – Radioactivity can cause serious damage to human health, and as yet, no treatment or permanently secure storage solution exists for higher level radioactive wastes, such as that generated by the nuclear power industry and from decommissioning nuclear power stations.

Waste disposal – There are environmental issues associated with the loss of resource implied by the final disposal of waste. BRE uses an absolute measure based on the mass of any waste that is disposed of in landfill or incinerated.

Fossil fuel depletion – This impact category indicator is related to the use of fossil fuels. Fossil fuels provide a valuable source of energy and feedstock, but are a finite resource and their continued consumption will prevent use by future generations.

Eutrophication – Nitrates and phosphates are essential for life, but increased concentrations in water can encourage excessive growth of algae and reduce the oxygen within the water. Eutrophication can therefore be classified as the over-enrichment of water courses. Its occurrence can lead to damage of ecosystems, increasing mortality of aquatic fauna and flora and to loss of species dependent on low-nutrient environments. Emissions of ammonia, nitrates, nitrogen oxides and phosphorus to air or water all have an impact on eutrophication. Direct and indirect impacts of fertilisers are included in the method.

Photochemical ozone creation – In atmospheres containing nitrogen oxides (NOx, a common pollutant) and volatile organic compounds (VOCs), ozone can be created in the presence of sunlight. Although ozone is critical in the high atmosphere to protect against ultraviolet (UV) light, low level ozone is implicated in impacts as diverse as crop damage and increased incidence of asthma and other respiratory complaints.

Acidification – Acidic gases such as sulphur dioxide (SO2) react with water in the atmosphere to form 'acid rain', a process known as acid deposition. When this rain falls, often a considerable distance from the original source of the gas, it causes ecosystem impairment of varying degree, depending upon the nature of the landscape ecosystems. Gases that cause acid deposition include ammonia, nitrogen oxides and sulphur oxides. It accounts only for acidification caused by SO2 and NOx. This includes acidification due to fertiliser.

Source: www.bre.co.uk

The complex data derived from the given criteria is calculated into ecopoints, which are then represented by ratings from E to A+ with an A+ rating being the highest achievable environmental rating. Using these ratings sets a benchmark for environmental excellence and ensures that reliable and comparable information is available between competing products, eliminating the confusion of varying claims and counter claims, making specification much easier.

National Scheme Operators (NSOs) develop and own country specific local schemes but are affiliated to BREEAM. BRE Global is the national scheme operator for the UK and broader international and European schemes (BREEAM), the Dutch Green Building Council is the national Scheme Operator for the Netherlands (BREEAM NL), the Instituto Tecnológico de Galicia is the NSO for Spain (BREEAM ES) and the Norwegian Green Building Council is the NSO for Norway (BREEAM NOR). All of the schemes comply with the requirements established by the Code for a Sustainable Built Environment.



Polyflor's product ranges predominantly have BRE product specific ratings & achieve **A+** in major use areas such as health & education

Where products have not been individually assessed, BRE generic ratings are available*, again achieving A+ in key areas

*This excludes the Polyflor Sport & Polyclad ranges.

BRE Individually Assessed Ratings

Independent, third-party certification is always important as its impartiality reassures customers that our products will perform as expected and is why Polyflor has had most of its product ranges individually assessed by BRE Global.

Each product which is certificated by BRE Global has undergone an LCA (life cycle analysis) therefore looking at its environmental performance throughout every stage of its life. Generic ratings are a good guidance, but are based on European production averages, whereas individual certification ensures accuracy of LCA data specific to the product and manufacturer.

The BRE Global rating scheme is categorised by end use areas, as the environmental impact in each can vary. Various products are available in the different sectors, which are subject to a pre-determined spread of ratings across the categories A+ to E. Therefore, more options may be available within the domestic sector. Additionally, life spans vary depending on the sector which affects the environmental impact: For example, an assumption that domestic flooring is replaced more frequently due to trends.

Polyflor's safety, homogeneous, heterogeneous and LVT ranges have been individually assessed by BRE Global to measure their environmental impact. The ratings are A+ to E, with A+ being the best rating, having achieved the lowest ecopoints. A better rating helps to maximise a building's BREEAM score, which is achievable through our 30 A+ ratings. Overall, Polyflor's certified ratings are impressive, particularly in the key areas of health and education, where BREEAM ratings are linked to government funding.

SAFETY	Cert.	Health	Education	Retail (fashion)	Retail (Durability)	Office	Domestic
Polysafe Quattro PUR	ENP472	A+	A+	A+	A+	A	A
Polysafe Astral PUR	ENP472	A+	A+	A+	A+	A	A
Polysafe Mosaic PUR	ENP472	A+	A+	A+	A+	A	A
Polysafe Vogue Ultra PUR	ENP472	A+	A+	A+	A+	A	A
Polysafe Standard PUR	ENP472	A+	A+	A+	A+	A	A
Polysafe Ecomax	ENP472	A+	A+	A+	A+	A	A
Polysafe Verona PUR	ENP472	A+	A+	A+	A+	A	A
Polysafe Wood fx PUR	ENP415	A+	A+	A+	A+	A	A
Polysafe Wood fx Acoustix PUR	ENP415	A+	A+	A+	A+	A	A
Polysafe Hydro	ENP472	A+	A+	A+	A+	A	A
Polysafe Hydro Evolve	ENP472	A+	A+	A+	A+	A	A
Polysafe Apex	ENP472	A+	A+	A+	A+	A	A
Polysafe Ultima	ENP472	A+	A+	A+	A	A	B
Expona Control PUR	ENP429	A+	A+	A+	A	A	A
HOMOGENEOUS	Cert.	Health	Education	Retail (fashion)	Retail (Durability)	Office	Domestic
Palettone PUR	ENP472	A+	A+	A+	A+	A	A
Pearlazzo PUR	ENP472	A+	A+	A+	A+	A	A
2000 PUR	ENP472	A+	A+	A+	A+	A	A
Classic Mystique PUR	ENP472	A+	A+	A+	A+	A	A
Prestige PUR	ENP472	A+	A+	A+	A+	A	A
Standard XL	ENP472	A+	A+	A+	A+	A	A
XL PU	ENP472	A+	A+	A+	A+	A	A
HETEROGENEOUS	Cert.	Health	Education	Retail (fashion)	Retail (Durability)	Office	Domestic
Forest fx PUR	ENP415	A+	A+	A+	A+	A	A
Expona Flow PUR	ENP415	A+	A+	A+	A+	A	A
Secura	ENP415	A+	A+	A+	A+	A	A
Silentflor	ENP415	A+	A+	A+	A+	A	A
Acoustix Forest fx PUR	ENP415	A+	A+	A+	A+	A	A
LVT	Cert.	Health	Education	Retail (fashion)	Retail (Durability)	Office	Domestic
Expona Commercial PUR	ENP429	A+	A+	A+	A+	A	A
Expona Design PUR	ENP429	A+	A+	A+	A	B	B
Bevel Line PUR	ENP429	A+	A+	A+	A+	A	A
Camaro PUR	ENP429	*	*	A+	A+	A	A
Colonia PUR	ENP429	*	*	*	*	*	A

* Product not suitable for use area and has therefore not been rated for the particular use area.

For verification and more information on our certification and environmental profiles, visit www.greenbooklive.com and click on the 'search GBL' link: Enter 'Polyflor' into the Company Name search box enter the BRE certificate number 472; 415 or 429 (without the ENP prefix) into the 'Cert No' search box.

BRE Generic Ratings

Where Polyflor products have not been individually certificated by BRE Global, generic ratings are available. As these products have not been individually assessed, the product data provided to the BRE is generic - it is industry standard data from key European manufacturers.

Generic ratings apply to specific categories of flooring installed into defined use areas. For example, homogeneous flooring to EN649 standard rated 34/43 for use area and installed in a healthcare environment. On average vinyl flooring achieves a generic BRE Global A+ rating for most types of vinyl across the categories shown below:

Standard	Homogeneous EN 649 EN ISO 10581	Heterogeneous EN 649 EN ISO 10582	Acoustic EN 651	LVS EN 653	LVT EN 649	Safety EN 13845	Rubber (profiled) EN 12199
Health Element	A+ 821570038	A+ 821570039	A+ 821570053	-	A+ 821570054	A+ 821570055	A+ 821570057
Education Element	A+ 821570065	A+ 821570066	A+ 821570010	-	A+ 821570013	A+ 921570010	A+ 821570015
Commercial Element	A 821570038	A 821570039	A 821570041	-	A 821570042	A 821570043	A 821570045
Retail Element	A+/A+ 821570038	A+/A+ 821570039	A+/A 821570053	-	A+/A 821570054	A+/A 821570055	A+/A+ 821570057
Domestic Element	A 821570065	A 821570066	A 821570010	A+ 821570002	A 821570013	B 921570010	A 821570015

For more detail about how these ratings are arrived at by BRE Global visit www.bre.co.uk/greenguide

The following Polyflor ranges are not individually assessed by BRE Global, but can be included within the appropriate generic ratings:

HOMOGENEOUS	LVT	LVS	SAFETY	RUBBER (profiled)
Polyflor SD	Expona Simplay PUR	Designatex	Polysafe QuickLay PUR	Noppe Stud Tile
Finesse SD	Camaro Loc PU		Polysafe Verona PUR Pure Colours	
OHMega EC	Affinity ²⁵⁵			
Polyflor EC				
Polyflor ROF				
Polyflex Plus PU				
Palettone SD				

Maximising BREEAM Credits with Polyflor



Polyflor's vast range of products, technical support and best value flooring, means you can maximise your BREEAM score without any compromise on performance, choice or budget.

Building Research Establishment's Environmental Assessment Method (BREEAM) is the longest standing and most widely used environmental assessment method for buildings in the UK and increasing its brand recognition globally.

Credits are awarded according to performance in 10 different categories for measuring sustainability: Management; Health & Wellbeing; Energy; Transport; Water; Materials; Waste; Land Use &

Ecology; Pollution; Innovation (extra). They are then added together to produce an overall score for the building on a scale of:

1. Outstanding: Less than top 1% of UK new non-domestic buildings (innovator).
2. Excellent: Top 10% of UK new non-domestic buildings (best practice).
3. Very Good: Top 25% of UK new non-domestic buildings (advanced good practice).
4. Good: Top 50% of UK new non-domestic buildings (intermediate good practice).
5. Pass: Top 75% of UK new non-domestic buildings (standard good practice).

Polyflor products can contribute to the award of BREEAM credits within the following categories - Materials, Waste and Health & Wellbeing

Materials

The Materials section makes up 12.5% of the overall scoring, offering 12 credits in total

Materials – MAT 01: Life Cycle Impact

Aim:

To recognise and encourage the use of construction materials with a low environmental impact (including embodied carbon) over the full life cycle of the building.

3 points: Using BRE A+ rated product – Polyflor can contribute towards a maximum 3 points for floor finishes when one of our A+ rated products is used. Note: 2 points are available for A rated product and 1 point for B rated product.

1 point: Bonus 'uplift' point – This can be awarded for the use of one of our ranges where a product specific BRE environmental profile or 3rd party verified EN 15804 compliant EPD is available.

Points awarded for each material type are then added up and weighted to award credits for this section of the project.

Polyflor products can contribute to the maximum available material points in the MAT 01 section for floor coverings.

6 credits total for MAT 01

(depending on building type)

Materials – MAT 03: Responsible Sourcing for Materials

Aim:

To recognise and encourage the specification of responsibly sourced materials for key building elements. 80% by mass of materials that make up elements must be responsibly sourced.

3.5 points: BES 6001 'Excellent' – Polyflor can contribute 3.5 points for the use of ranges which are certified to BES 6001, achieving 'Excellent'.

1 point: EMS certified – Polyflor can also contribute 1 additional point for having ISO 14001 environmental management system certification.

Use of Polyflor ranges with BES 6001 'Excellent' and ISO 14001 certification, contribute 4.5 of a maximum of 5 points (90% of available points) towards the award of 3 credits in MAT 03. Floor finishes are considered with all other fittings such as windows and doors on a mass basis for the fittings part of the credit.

The data from the whole building is then weighted and buildings achieving greater than 54% of the available points are awarded a maximum of 3 credits.

Use of Polyflor ranges can significantly contribute to credits in MAT 03.

3 credits total for MAT 03

Waste

The Waste section makes up 7.5% of the overall scoring, offering 7 credits in total. Polyflor can contribute to the credits available to flooring for WST 01 and will contribute towards a maximum score for 'diversion of resources from landfill'

Waste – WST 01: Construction Waste Management

Aim:

To promote resource efficiency via the effective management and reduction of construction waste.

1 credit: Diversion of Resources from Landfill – Use the Recofloor take-back scheme in conjunction with a site waste management plan (SWMP) to remove waste vinyl flooring from the construction project. This can contribute towards the available credit on a BREEAM assessment.

Exemplary Level Credit – Available where demolition and non demolition waste is kept to under challenging volumes/tonnages (85% by volume and 95% by weight) and diverted from landfill. Use of the Recofloor scheme can help achieve this for flooring demolition waste and non demolition waste, as the material is taken back and recycled.

Use of Polyflor materials and the Recofloor Scheme demonstrates diversion from landfill, potentially contributing towards 1 credit for diversion of resources from landfill and 1 exemplary level credit.

4 credits total for WST 01, plus 1 Exemplary Level credit

Health & Wellbeing

The Health & Wellbeing section makes up 15% of the overall scoring, offering 10 credits in total. Polyflor can contribute towards 1 credit for HEA 02: Indoor Air Quality

Health & Wellbeing – HEA 02: Indoor Air Quality

Aim:

To recognise and encourage a healthy environment through specification and installation of appropriate ventilation, equipment and finishes.

1 credit: Minimising sources of VOCs and formaldehyde – Polyflor can contribute towards this credit through demonstrating conformance to EN 14041:2004. Polyflor floor coverings are REACH compliant and do not contain formaldehyde, conforming to the E1 declaration and confirmed within product CE marking. All Polyflor products have low VOC emissions.

The use of Polyflor materials can contribute towards 1 Health & Wellbeing credit for minimising sources of VOC and Formaldehyde.

6 credits total for HEA 02



Polyflor In Situ

North Middlesex Hospital

- Flooring Used:**
- Forest FX
 - Polysafe Standard
 - Hydro Evolve
 - XL PU
 - Finesse SD



**Achieved
BREEAM
'Excellent
rating'**

A selection of Polyflor floor coverings, including Forest fx, XL PU, Polysafe Standard, Polysafe Hydro Evolve and Finesse SD, were used throughout the North Middlesex Hospital's new £17.9 million maternity unit, as part of a larger £80 million modernisation and expansion programme at the hospital. The new unit includes eight home-from-birth rooms, an 18-cot neonatal unit with three mother and baby rooms and extra capacity if necessary. A labour ward includes a delivery suite and two obstetrics operating theatres.

SKArating®

Operated by RICS (Royal Institution of Chartered Surveyors), SKA Rating is an environmental assessment tool for sustainable fit-outs. Where BREEAM® and LEED® focus on the environmental impact of the whole building, SKA is a benchmark and standard for non-domestic fit-outs, including Retail, Office and Higher Education.

Around 11% of the UK construction sector is involved in fit-outs and many buildings, particularly for retail and office, can have up to 40 fit-outs during their lifecycle.

The SKA scheme comprises over a hundred 'good practice' measures, incorporating energy, CO₂ emissions, materials, waste, water, wellbeing, pollution and transport. The percentage score for the assessment across the given criteria, provides the fit-out project with a Bronze; Silver or Gold label. These ratings are reached by achieving 25%; 50% and 75% respectively, of the measures in scope.

Along with Polyflor's many credentials including ISO 14001, BES 6001, plus its low maintenance and low VOC emissions, Polyflor products can positively contribute to SKA assessments within the Soft Flooring category and can potentially meet all or at the very least (and the minimum requirement), one of the following criteria:

- **Are reused;**
Some Polyflor ranges can be reused, including loose-lay products, Expona Simplay and Polysafe QuickLay.
- **If new, are manufactured with at least 50% recycled content (measured by mass) and 100% recyclable content (designed for deconstruction with components that can be recycled;**
Some Polyflor products may contain around 50% recycled material and are all 100% recyclable

- **Have an A or A+ rating in BRE's Green Book Live database for the office / retail / education scheme;**
The majority of Polyflor products are individually assessed by BRE and achieve A and A+ ratings

- **Have an A or A+ rating in BRE's The Green Guide to Specification for the office / retail / education scheme;**
Polyflor products without Green Book Live ratings achieve generic A and A+ ratings

- **Are manufactured from 50% renewable and natural products;**
Some Polyflor products contain up to 85% natural material, which includes renewables. This can include fillers used, for example

- **Are supplied with an environmental product declaration, written in accordance with ISO 14025 standards;**
The vast majority of Polyflor ranges have EN 15804 EPDs written to standard ISO 14025

For more information about SKA Ratings, visit www.rics.org

For SKA ratings specific to Polyflor floor coverings, please contact us at info@polyflor.com





Leadership in Energy & Environmental Design (LEED®) is a sustainable building certification programme that rewards best-in-class building strategies and practices. Stringent criteria are set which a building project must meet to achieve LEED® certification. In doing so, specifiers will seek to use the most sustainable options available for the project.

There are four levels of certification available.

As highlighted, Polyflor can contribute to points on a LEED® project. The number of points achieved throughout the entire build establishes the level of LEED® certification for that project, outlined below:



Certified	Silver	Gold	Platinum
40-49 points	50-59 points	60-79 points	80+ points

In 2017, the top 10% of LEED® certified companies achieved a Platinum rating, with most certified companies achieving a Gold rating at 44%; 30% achieved Silver and 14% obtained a Certified rating.

LEED v4 is the evolutionary next step from LEED v2009. LEED v4 focuses on increasing technical stringency and transparency from past versions and developing new requirements for building types such as data centres; warehouses & distribution centers; hotels & motels; existing schools; existing retail and mid-rise residential.

Polyflor floor coverings have the potential to contribute to LEED® points through the following criteria:

Materials & Resources

MR Credit: Construction and Demolition Waste Management

Polyflor is 100% recyclable and post-consumer waste, including offcuts and smooth uplifted waste can be recycled. Alternatively, our Expona Simplay, Secura and Designatex can be reused as they do not require adhesive for installation.

The Recofloor scheme (of which Polyflor is a founding and funding member) complies with site waste management legislation and diverts vinyl flooring waste (offcuts and uplifted) from going to landfill. Recycle or salvage 50% of the waste for 1 point, or 75% for 2 points.

MR Credit: Building Product Disclosure and Optimisation - Sourcing of Raw Materials (Bio-based Content)

Polyflor flooring contains up to 85% sustainable materials and uses bio-based ingredients. 1 point available.

MR Credit: Building Product Disclosure and Optimisation- Environmental Product Declarations.

Polyflor can contribute to the LEED® credit through its product-specific environmental product declaration (EPD), which can provide 1 point; or its generic EPD which may contribute 0.5 points.

MR Credit: Building Product Disclosure and Optimisation - Sourcing of Raw Materials (Recycled Content).

Polyflor flooring contains up to 40% recycled material, which typically includes post-consumer waste from the project site as well as pre-consumer (or post-production) waste, including process and sampling waste for instance. 1 point available.

Indoor Environmental Quality

EQ Credit: Low Emitting Materials - Option 1, Product Calculation CDPH Compliant & Option 2, Budget Calculation CDPH Compliant

Polyflor can contribute to both options of this credit through certification of its low emitting products. VOC certification is available via Indoor Air Comfort, Indoor Air Comfort Gold and FloorScore® certification (Polyflor's certificates are available online at www.polyflor.com, www.eurofins.com and www.scs-certified.com). Along with other materials used on the project, Polyflor products can contribute towards 1-3 points.

LEED® Points

Expona Commercial PUR

Category	Points
Materials & Resources	
MR Credit: Building Product Disclosure and Optimisation - Environmental Product Declarations Product specific EPD available	1
MR Credit: Building Product Disclosure and Optimisation - Sourcing of Raw Materials (Recycled Content) 40% post production (pre-consumer) recycled content	1
MR Credit: Building Product Disclosure and Optimisation - Sourcing of Raw Materials (Bio-based Content) 70% natural content, 2% rapidly renewable. Phthalate free with bio-based content	1
MR Credit: Construction and Demolition Waste Management 100% recyclable. 50% of all waste recycled = 1 point, 75% of waste recycled = 2 points	1-2
Indoor Environmental Quality	
EQ Credit: Low Emitting Materials - Option 1, Product Calculation CDPH Compliant & Option 2, Budget Calculation CDPH Compliant FloorScore® and Indoor Air Comfort Gold certified	1-3

POLYFLOR
INSPIRING THE WORLD

LEED® Points

Polyflor Palettone PUR

Category	Points
Materials & Resources	
MR Credit: Building Product Disclosure and Optimisation - Environmental Product Declarations Generic EPD available	0.5
MR Credit: Building Product Disclosure and Optimisation - Sourcing of Raw Materials (Recycled Content) 20% post production (pre-consumer) & 5% post-consumer recycled content	1
MR Credit: Building Product Disclosure and Optimisation - Sourcing of Raw Materials (Bio-based Content) 60% natural content, 2% rapidly renewable. Phthalate free with bio-based content	1
MR Credit: Construction and Demolition Waste Management 100% recyclable. 50% of all waste recycled = 1 point, 75% of waste recycled = 2 points	1-2
Indoor Environmental Quality	
EQ Credit: Low Emitting Materials - Option 1, Product Calculation CDPH Compliant & Option 2, Budget Calculation CDPH Compliant FloorScore® and Indoor Air Comfort Gold certified	1-3

POLYFLOR
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For quick referencing and ease of specification, Polyflor has LEED® Points PDFs available digitally, across all product ranges. Please request these documents via info@polyflor.com or speak to our Customer Technical Services Department on +44 (0)161 767 1912.



Global GreenTag^{Cert™}

The Ecospecifier Global GreenTag^{Cert™} scheme operated by Global GreenTag P/L is a third party ecolabel programme that rates sustainable products for the built environment.

Polyflor has many products certified under the scheme in Australia and New Zealand, with Polyflor homogeneous PUR ranges typically in the top 50% of resilient finishes based on their GreenTag Ecopoints.

The assessment of products is based on a life cycle approach and measuring the impact of products and their ingredients, outlined in the following critical areas:

- Reduction of energy & greenhouse gases
- Habitat & land degradation
- Toxicity to land, air & water
- Resource depletion & efficiency
- Human health & ethical employment

Due to the strong performance in minimising the environmental and other impacts in these categories, Polyflor products are also listed on the Ecospecifier database (www.ecospecifier.com.au) of environmentally preferable building materials, providing architects, designers and specifiers an easier and effective way to select an environmentally sustainable floorcovering.

Polyflor was the first commercial vinyl flooring organisation to achieve Global GreenTag LCARate™ certification across its key ranges. GreenTag's LCARate™ is an EPD and is a sustainability rating system based on life cycle analysis (LCA) and EcoPOINT score. The LCA ratings are split into four categories for easy product selection: Bronze (Good); Silver (Very Good); Gold (Excellent) and Platinum (World Leading). Polyflor's ranges perform very well, achieving LCARate™ Silver PLUS and Gold PLUS (the 'PLUS' denotes the link to additional certification via the GreenRate™ system).

In addition to the Global GreenTag LCARate™, Polyflor achieves GreenRate™ level A across these certified ranges. Maximum points are scored in the Materials 'Sustainable Products' and IEQ-VOC sections of the Green Star® rating tools. For example, a GreenRate™ Level A achieves 100% of available credit points in sustainable products and refurbishment products.



HOMOGENEOUS	LCA Rate™	Green Rate™	EcoPOINT
Palettone PUR	Gold PLUS	Level A	0.46
Pearlazzo PUR	Gold PLUS	Level A	0.47
Prestige PUR	Gold PLUS	Level A	0.48
Classic Mystique PUR	Gold PLUS	Level A	0.48
2000 PUR	Gold PLUS	Level A	0.48
XL PUR	Gold PLUS	Level A	0.46
Standard XL	Gold PLUS	Level A	0.48
Polyclad PU Plus	Gold PLUS	Level A	0.37
SAFETY	LCA Rate™	Green Rate™	EcoPOINT
Polysafe Standard PUR	Gold PLUS	Level A	0.46
Polysafe Astral PUR	Gold PLUS	Level A	0.47
Polysafe Vogue Ultra PUR	Gold PLUS	Level A	0.44
Polysafe Wood fx Acoustix PUR	Silver PLUS	Level A	0.53
Polysafe Verona PUR	Gold PLUS	Level A	0.50
Polysafe Wood fx PUR	Gold PLUS	Level A	0.47
Polysafe Quattro PUR	Gold PLUS	Level A	0.46
Polysafe Apex	Silver PLUS	Level A	0.58
HETEROGENEOUS	LCA Rate™	Green Rate™	EcoPOINT
Acoustix Forest fx PUR	Silver PLUS	Level A	0.53
Forest fx PUR	Gold PLUS	Level A	0.50
Expona Flow PUR	Gold PLUS	Level A	0.50
Bloc PUR	Silver PLUS	Level A	0.52
LVT	LCA Rate™	Green Rate™	EcoPOINT
Expona Design PUR	Gold PLUS	Level A	0.44
Expona Domestic PUR	Gold PLUS	Level A	0.44
Expona Commercial PUR	Gold PLUS	Level A	0.46
Expona Superplank PUR	Gold PLUS	Level A	0.47
Expona Linné	Gold PLUS	Level A	0.48
Camaro PUR	Gold PLUS	Level A	0.44
Affinity2 ⁵⁵ PUR	Gold PLUS	Level A	0.44

To view certificates visit www.globalgreentag.com/certified-products-australianz

Green Star®

In our Australian and New Zealand markets, Green Star® rating tools reward sustainability outcomes and encourage moving beyond standard practice. Green Star® provides a framework of best practice benchmarks and rates the environmental and sustainable performance of a building as with BREEAM® and LEED®.

A Green Star® rating provides independent verification that a building or community project is sustainable and demonstrates leadership, innovation, environmental stewardship and social responsibility. Projects are assessed against a range of environmental impacts, which include Management; Indoor Environment Quality; Energy; Transport; Water; Materials; Land Use & Ecology; Emissions and Innovation.

All types of buildings, new and old, can achieve Green Star® ratings. The rating tools to enable this are as follows:



Green Star® is a registered Trade Mark of the Green Building Council of Australia

Green Star - Performance: Increasing levels of operational efficiency within existing buildings.

Green Star - Design and As Built: Sustainable design and construction of public and private buildings, including hospitals, retail and industrial centres, offices, plus schools and colleges.

Green Star - Interiors: Transforming interior fitouts of all buildings from shops to hotels.

Green Star - Communities: Improving the sustainability of projects within the neighbourhood and community.

Green Star® projects (Design, As Built, Interiors and Communities) can achieve a Green Star® certification of 4 to 6 Star Green Star®. Buildings assessed using the Green Star® Performance rating tool can achieve a Green Star® rating from 1 to 6 Star Green Star®.

Polyflor has achieved maximum rating points in the Green Building Council Australia (GBCA) and New Zealand Green Building Council (NZGBC) Green Star® rating tools. Using Polyflor products certified by the Global GreenTag^{Cert™} third party certification scheme can help the specifier achieve maximum points in the Materials 'Sustainable Products' and IEQ-VOC sections of the Green Star® rating tools. Polyflor's Homogeneous flooring ranges also achieve 'PVC Best Practice', as audited by NCS International Pty Ltd, to meet the GBCA best practice guidelines. Because of this, potential for points on a Green Star® assessment is further improved.

"In 2010, Global GreenTag^{Cert™} launched with a world-first standard that required PVC to be mercury-free, use non-endocrine disrupting plasticisers, and require full on-site audit of LCA data and environmental licenses and emissions to ensure only BAT (best available technology) products were certified.

"Since then numerous BAT PVC products have been certified, mostly at Silver or Gold level, and can easily be compared to

other flooring types with both similar, but also worse, eco-point scores and ratings. Then the collaboration between the Vinyl Council of Australia (VCA) and GBCA recognised BAT under the Best Practice PVC Standard (BPPVC) Guidelines adopted in 2011."

David Baggs,

CEO & Program Director of Global GreenTag International Pty Ltd; and CEO & Technical Director of Integreco Pty Ltd, a Sustainable Project & Product Consultancy

WELL Building Standard™

The WELL Building Standard™ (WELL) is a performance-based system for measuring, certifying and monitoring aspects of a building that impacts human health and wellbeing. It focuses on 7 core areas:



Air

The WELL Building Standard™ (WELL) determines requirements in buildings that reduce or minimise the sources of indoor air pollution.

01 Air Quality Standards:

Indoor air pollution can lead to a variety of symptoms and health conditions. Volatile Organic Compounds (VOCs), combustion by-products and airborne particles can trigger nausea, headaches, asthma, respiratory irritation and allergies.

Part 1 Standards for Volatile Substances – The following conditions are met:

- a.¹ Formaldehyde levels less than 27 ppb.
- b.¹ Total volatile organic compounds less than 500 µg/m³.

Verification: On Site Performance Test

Polyflor meets these conditions and can supply confirmation letters and VOC certification including FloorScore®, AqBB, AFSSET and Indoor Air Comfort Gold, for example.

04 VOC Reduction:

Indoor air quality can be compromised by VOCs that off-gas from materials in the building. This can include paints, adhesives, cleaning products and other every-day items such as air fresheners and personal care products.

Part 3 Flooring – The VOC emissions of all newly installed interior flooring must meet all limits set by the following, as applicable:

- a.¹ California Department of Public Health (CDPH) Standard Method v1.1-2010.

Verification: Letter of Assurance from Architect & Contractor

Polyflor floor coverings are low VOC. Certification meeting the CDPH includes FloorScore®.

Comfort

Indoor air comfort is important and is therefore a WELL focus for reducing the most common sources of physiological disruption, distraction and irritation. Goals are to enhance acoustic, ergonomic, olfactory and thermal comfort to prevent stress and injury and facilitate comfort, productivity and well-being.

P4 Impact reducing flooring:

Footfall noise from adjacent spaces can lead to occupant dissatisfaction. Constructing interiors to accommodate for footfall noise can greatly reduce its negative impact on acoustic comfort. In common spaces, especially corridors in open environments where there is heavy foot traffic, this feature minimises disturbances.

Part 1 Floor Construction – All floors in the corridors of all regularly occupied spaces have the following:

- a.¹⁰¹ Impact Insulation Class (IIC) value of not less than 50.

Verification: Letter of Assurance from Architect

Polyflor offers acoustic flooring options including Silentflor; Acoustix Forest fx PUR; Polysafe Wood fx Acoustix PUR; Secura PUR and Designatex PUR. Acoustifoam, a foam backing sheet, can also be used in conjunction with many other Polyflor sheet floor coverings.

Mind

The WELL Building Standard™ identifies policies that can be implemented to positively impact mood, sleep and stress levels, in order to improve occupant health and well-being.

87 Beauty and Design I:

Integrating aesthetically pleasing design into a building or space can provide occupants with pride and joy from their surroundings. This can improve occupant mood and create a calming environment.

Beauty and Mindful Design – The project contains features intended for all of the following:

- a.¹³ Human delight.
- b.¹³ Celebration of culture.
- c.¹³ Celebration of spirit.
- d.¹³ Celebration of place.
- e.¹³ Meaningful integration of public art.

Verification: Documents: Professional Narrative

As well as functionality and sustainability, Polyflor floor coverings come in a variety of beautiful designs to stimulate the senses. Visit www.polyflor.com/products for more information.

98 Organisational Transparency:

By transparently sharing their sustainability & CSR policies and investment decisions, organisations enable stakeholders to determine if their personal values are shared by the organisation, and also engage.

Transparency Program Participation – The entity seeking WELL certification must participate in one of the following programs, and results must be publicly available within the project premises and on the entity's website:

- a.⁷² The JUST program operated by the International Living Future Institute (for more information, see www.justorganizations.com).
- b.¹⁸¹ Sustainability reporting following the G4 Sustainability Reporting Guidelines organised by the Global Reporting Initiative (for more information, see www.globalreporting.org).

Verification: On Site Spot Check & Policy Documents

Polyflor openly shares its sustainability & CSR policies online. Sustainability & CSR performance and Objectives, as outlined from the ISO 14001 and BES 6001 Responsible Sourcing frameworks, are included within this Sustainability Report. For additional information visit our dedicated sustainability page at www.polyflor.com/sustainability

For more information on the WELL Building Standard™ please visit www.wellcertified.com

Corporate Social Responsibility

Corporate Social Responsibility (CSR) is not a new concept and is a term which is being increasingly used with growing importance. The World Business Council for Sustainable Development defines it as such:

“Corporate social responsibility is the continuing commitment by business to contribute to economic development while improving the quality of life of the workforce and their families as well as of the community and society at large.”



“Increasingly, we are all looking to purchase products and use services which come from companies who do the right thing, who are responsible. This is true in our every-day lives, as consumers and in business.”

“Never has there been more demand for corporate social responsibility. Companies should demonstrate their sustainability credentials; encompass social and economic dimensions along with supply chain management and product stewardship. This is particularly true within the flooring industry.”

Sonia Goode,
Sustainability Market Manager, Polyflor Ltd.

Commitment to our Supply Chain

Polyflor is certified to Quality Management System (QMS) ISO 9001 and ISO 14001, which sets out the criteria for an Environmental Management System (EMS) and maps out a framework for a company to follow in setting up an effective EMS.



Polyflor Supply Chain Management Goal: To communicate and work constructively with the supply chain to deliver sustainable policies and practices.

ISO 9001 and ISO 14001 are recognised globally and are standard practice for many organisations. As such, Polyflor prefers approved and trusted suppliers who are ISO 9001 and 14001 certified or have robust environmental procedures and where possible are local to our manufacturing sites. Polyflor also uses Quality Assessment Questionnaires and follows up with regular meetings and audits.

Additionally, we have a responsible sourcing policy, plus SA 8000 and BES 6001 certification for responsible sourcing. SA 8000 is an international, auditable social certification standard for decent workplaces, across all industrial sectors. It is based on the UN Declaration of Human Rights, conventions of the ILO, UN and national law, and spans industry and corporate codes to create a common language to measure social performance. BES 6001 is a framework Standard from BRE Global for Responsible Sourcing, which helps Polyflor manage and reduce impacts throughout the supply chain.

As part of our ongoing BES 6001 objectives, we assess our suppliers on their business procedures and ethics as well as their commitment to the reduction of environmental impacts. With regards to the environmental impacts associated with suppliers' transport operations to and from our business, we encourage the use of energy efficient vehicles and adequate driver training to improve vehicle fuel efficiencies. For main suppliers, Polyflor's target score of more than 90% should be achieved on the following criteria: Supplier vehicles used to deliver raw materials to site have modern Euro V or Euro VI energy efficient engines and suppliers ensure that adequate driver training has been given to ensure maximum fuel efficiency. In 2018, Polyflor's suppliers achieved beyond our targets with an impressive score of 97% - improving on 95% in 2016.

Another of our objectives is purchasing in bulk to minimise the transport impacts of our products, ensuring 95% of bulk deliveries are above the minimum load size of 23 tonnes. Unfortunately, we narrowly missed this target, achieving 93% in 2018, but this was still a 2% improvement on 2017. This will be reviewed and discussed further with our suppliers.

We also work with suppliers with the closest possible proximity to the Polyflor production sites. Our target is 85% of raw materials to be supplied within 500 miles of the factory. However, there was an 8% short fall on our 85% goal. We haven't changed our objectives or changed suppliers for any commercial gain outside our policies, other than responding to factors outside our control which caused the deviation from our figures.

- 46% of all raw materials supplied within 50 mile radius (by Kg)
- 49% of all raw materials supplied within 100 mile radius (by Kg)
- 50% of all raw materials supplied within 300 mile radius (by Kg)
- 77% of all raw materials supplied within 500 mile radius (by Kg)

In 2018, there was no change with 100% of Polyflor's raw material suppliers having achieved ISO 9001 and 83% achieving OHSAS 18001. There was a 1% decrease on 2017, with suppliers achieving 91% for ISO 14001, the same as in 2016.

Polyflor's parent company, James Halstead PLC, published its Modern Slavery Act Statement, underlining the steps taken to prevent modern slavery and human trafficking in its business and supply chains. Go to www.polyflor.com for more information.



Summary 2018

Polyflor

Responsible sourcing policy

ISO 9001, OHSAS 18001 & SA 8000 certified

ISO 14001 & BES 6001 certified

Modern Slavery Act Statement

Database of approved and trusted suppliers, most of whom are local to our manufacturing sites

Engagement Supplier Surveys and Quality Assessment Questionnaires are used and followed up with regular meetings and discussions with existing suppliers

Our Suppliers

100% ISO 9001

91% ISO 14001

83% OHSAS 18001

97% Delivery HGVs have Euro V or VI engines

97% Driver training programme

We use local printing companies with sound environmental credentials, using solvent free inks, plus FSC and Carbon Capture® accredited paper sources.

Polyflor's Value Chain

It is important to Polyflor that we go beyond what is expected as a manufacturer encouraging best practice throughout the flooring sector and adding value in pivotal ways.

Our established Training Academy contributes to the value chain and continued to deliver high quality training courses throughout 2018 at its purpose-built facility. Further to this, Polyflor also continued its free Floor Cleaning & Maintenance Course, aimed at educating how to get the best out of flooring by using the correct cleaning methods and products to facilitate a longer life and reduce ongoing costs.

In addition to providing training and education in getting the best out of our flooring, we believe that product stewardship is key, which is why we fully engage with all our customers to manage their waste Polyflor material and recycle, with Recofloor being a cornerstone of this principal.

BES 6001 Responsibility Matters

Responsible Sourcing is defined in BS8902 – Responsible sourcing sector certification schemes for construction products – Specification as: ‘The management of sustainable development in the provision or procurement of a products.’ Sustainable development is further defined as: ‘An enduring, balanced approach to economic activity, environmental responsibility and social progress.’

Source: www.greenbooklive.com

For many years now there has been certification for responsible sourcing, including Fair Trade; RFS (Responsible Fishing Scheme) and FSC (Forest Stewardship Council). Whilst the FSC standard provides assurance for products harvested from well managed forests - including wood flooring - there hasn't been to date a standard available for all flooring and construction products.

What is BES 6001?

BES 6001
Responsible Sourcing
www.greenbooklive.com

The BES 6001 standard, from BRE Global, is a means of securing certification to demonstrate through independent, third-party certification, that products certified against the scheme have been responsibly sourced. BES 6001 does not focus on a company's site, but products or ranges manufactured at one or more sites.

BES 6001 is a framework standard for Responsible Sourcing which sets out requirements under three main headings: Organisational Management; Supply Chain Management and Environmental and Social Responsibility Management. To meet the standard, companies must satisfy certain compulsory elements. Additionally, there are higher levels of compliance that can result in a higher performance rating being awarded.

Depending on a company's performance against the criteria, ratings are awarded on a Pass; Good; Very Good and Excellent basis. Polyflor sets the bar high, having been the only certified floor covering manufacturer to achieve an Excellent rating for Version 3 of the standard. By achieving Excellent, Polyflor has satisfied the compulsory sections and conforms to the highest levels of compliance, which has been a massive undertaking for the company - involving production, all other internal departments and its supply chain. Certification is available on www.greenbooklive.com.

The Importance of BES 6001

The UK Contractor's Group (representing over 30 leading construction companies who together account for a third of the UK construction industry turnover) state that: 'UKCG members support and give preference to procuring products which are able to demonstrate compliance with a recognised responsible sourcing scheme, certified by a third party.'

BES 6001 is just that. It is an increasingly important and valuable standard for customers who are looking to procure flooring with sound environmental credentials and traceability, from socially aware and ethical suppliers. Without doubt, the standard can help customers make better informed decisions when selecting suppliers.

The hard work and challenges set out by the BES 6001 framework has driven us to scrutinize our own supply chain more than ever before with greater commitment to using trusted, local suppliers who are ISO 9001 and ISO 14001 certified. Additionally, stringent and demanding environmental objectives have been set and managerial procedures and policies improved.

BES 6001 has also given Polyflor more direction with regards to social responsibility management - with a focus on internal procedures regarding employees, as well as how the company engages with local communities and stakeholders in general.

Furthermore, the use of Polyflor products with BES 6001 certification and individual BRE ratings can potentially contribute significantly to the available points in section MAT 03 of a BREEAM Assessment. Where many companies typically contribute 1 point through an environmental management system such as ISO 14001, Polyflor can provide an additional 3.5 points for its BES 6001 Excellent certification. For more information on this, refer to the 'Maximising BREEAM Credits with Polyflor' pages in this document. BES 6001 also secures additional credits within the Code for Sustainable Homes.



Commitment to our Employees

As a major employer, Polyflor has a responsibility to its employees, ensuring their health and wellbeing as well as reducing labour turnover, which remains low.

In fact, Polyflor has 25 and 40-year clubs for all employees who have been employed by Polyflor for the respective number of years, some of whom have worked for Polyflor for their entire careers, joining straight from school. Retaining an experienced and knowledgeable workforce is extremely important to Polyflor.

Polyflor recruits internally and from the local, surrounding areas, advertising through local media, job centres, recruitment agencies and online. We offer graduate training programmes, internships and apprenticeships, in support of younger people wishing to develop their employment skills. Polyflor's Human Resources Manager is also a volunteer for the Chartered Institute of Personnel and Development's Steps Ahead Mentoring project, which offers jobseekers one-to-one mentoring to improve their employment skills in the local area.

As standard practice, Polyflor has numerous training and development programmes; total compliance to the Equality Act 2010; employment health & safety policies and procedures are in place, along with employee benefits available to all staff including a pension scheme, share scheme, plus enhanced maternity and paternity pay.

Polyflor engages with all its staff through annual Performance and Development Reviews and via our monthly forums, whereby employees are encouraged to voice any issues regarding the workplace through chosen representatives of each department. Meeting minutes are circulated company-wide, so there is full transparency on what has been discussed and any outcomes.

Recruitment & Retention

- Low staff turnover with 25 and 40-year clubs.
- Positions are advertised internally and within surrounding areas.
- We employ graduate trainees, internships and apprentices with requirements reviewed on an annual basis.

Training & Development

- An induction programme is undertaken by new employees, including an environmental induction
- Annual appraisals identify areas of strength and opportunities or targets
- Professional development is encouraged through courses and training where both employee and employer benefit

- Promotion or opportunities in different departments are often distributed internally throughout the business, although obtaining the right skill set is important so positions are advertised to external candidates
- Polyflor engages with all staff regarding environmental issues, directly through email, letter and booklet as well as indirectly through www.polyflor.com, regular newsletters and this annual report which is circulated throughout Polyflor
- Recofloor employees present to the sales, marketing and distribution departments, so they have a better understanding of achievements, goals and their part in its process
- The Polyflor floor fitting school is accessible to employees, which improves their understanding of Polyflor flooring and provides transferable skills for their own homes

Equality

- Equal opportunities & diversity policy
- Modern Slavery Act Statement
- Anti-bullying & Anti-discrimination policies
- Anti-ageist, 35% of employees aged between 46 & 55, with 28% (the next biggest age group) aged 56+
- Ratio of men to women is 84% to 17%
- 11% of female staff and 14% of male staff hold management and supervisory positions
- Employees are typically local and represent the social demographic of the local area
- Maternity and paternity policy; flexible working hours and return to work

Employee Health & Safety

- BS OHSAS 18001 and SA 8000
- We circulate a 'handling stress at work' policy
- A health & Safety Management procedure is in place - in accordance with HSG65, Health & Safety Executive Document Guidance
- Potential safety risks and incidents are reported for action and avoidance

- Accident reporting is in line with OHSAS 18001 guidance - all work-related injuries are recorded and followed up with a risk assessment and remedial action
- No fatalities have ever been recorded in the company's history
- A Pedestrian Policy is in place including demarcated pedestrian pathways and crossings and high visibility vests are issued to employees or visitors who walk around our warehousing facilities
- Ear plugs are used in production, within hearing protection zones in various locations around the factory
- Occupational Health - medical and fitness checks for new employees as well as ongoing health checks for employees, particularly Polyflor fleet drivers
- Work zone assessments are conducted by Polyflor's occupational health nurse

Employee Benefits & Wellbeing

- Pension Scheme for every employee after 3 months of employment with Polyflor
- Employee share scheme
- Company social club for all employees
- Break out zones, with seating and facilities to buy or prepare food are available on all sites
- Areas to sit outside are accessible at all Polyflor sites
- We enable and provide time for employees to undertake voluntary work
- Bike sheds and shower facilities are obtainable at the Whitefield site

2018 Update

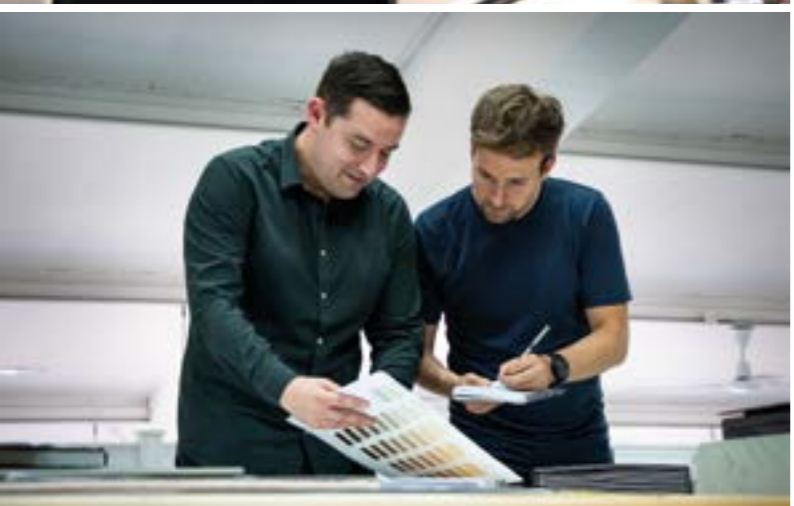
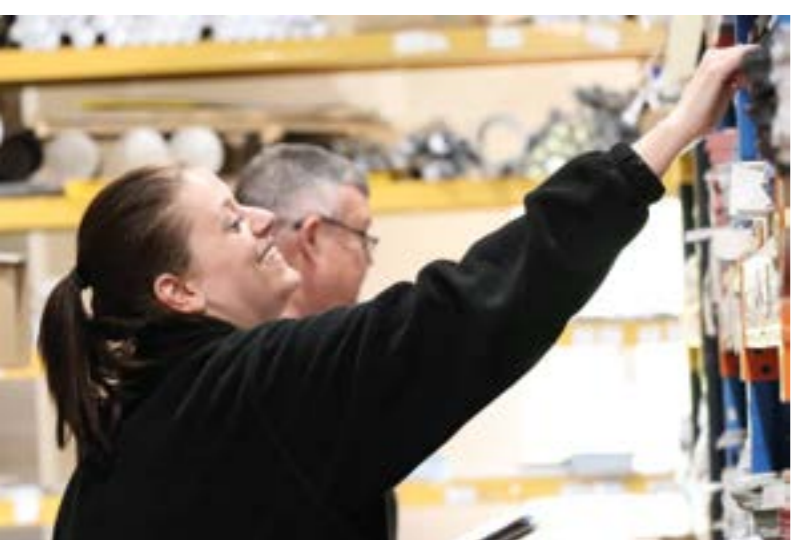
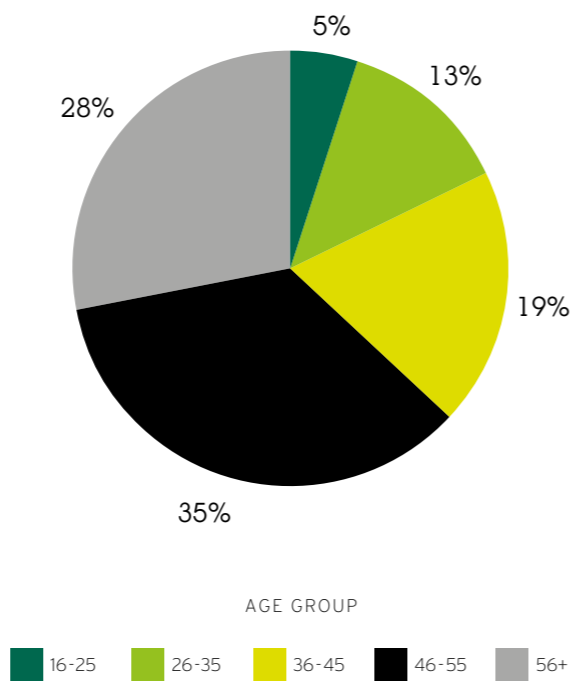
	2012	2013	2014	2015	2016	2017	2018	+/-
Employment & Turnover								
Total Employees	562	561	548	552	515	477	493	3%
New Recruits	29	32	37	41	31	21	43	105%
Labour Turnover	5%	7%	10%	9%	13%	13%	8%	-38%
Contracts								
Full Time Employees	535	533	527	534	496	461	482	5%
Part Time Employees	27	28	21	18	19	16	11	-31%
Temporary Employees	17	17	16	8	9	5	24	380%
Apprenticeships	0	2	2	3	2	0	0	0%
Equality								
Male Employees	485	482	467	472	432	394	412	5%
Female Employees	77	79	81	80	83	83	85	2%
Male Managers	60	61	61	54	52	48	49	2%
Female Managers	9	10	10	10	10	8	9	13%
Retention								
Internal Promotions	4	5	6	4	6	2	4	100%
Employees Undergone Training Programmes	13	19	40	69	75	100	95	-5%
Total Employees in 25-Year Club	47	58	76	75	81	69	41	-41%
New Members in 25-Year Club	12	9	18	22	8	13	1	-92%
Total Employees in 40-Year Club	4	4	6	8	9	10	10	0%
New Members in 40-Year Club	0	2	3	2	4	2	1	-50%
Health & Safety								
Loss Time Accident (LTA)	13	7	10	8	11	6	14	133%
Actual Days Lost through LTA	213	166	287	143	348	96	133	39%

Employee Age Groups 2018

2018 was a positive year, most significantly with employee retention being highest in 5 years, combined with a 105% increase in new starters. Furthermore, we saw increases in full time employees, female staff and female managers. We also doubled 2017's quota for internal promotions.

As testament to our success in retaining valued and experienced employees, Polyflor had 1 new member in each of the 25 and 40-Year Clubs, with total memberships for 2018 reaching a fantastic 41 and 10 members respectively. Cumulatively, there were 51 members in the 25 and 40-Year Clubs, making up 10% of Polyflor's workforce.

New members to both clubs received recognition of their achievements and had the opportunity of a presentation and afternoon tea with Geoffrey Halstead, retired Chairman of Polyflor's parent company, James Halstead PLC.



25-Year Club

"I joined the company in the Plant Engineering Department as a Design Draughtsman in July 1993. My background was in the acoustics and nuclear industries. Over these 25 years I have been involved in the design, manufacture and installation of hundreds of projects and I have been the Principal Project Engineer on several major projects, including the new laboratory and test facility; installation of the completely new Polysafe production line and electrostatic precipitation cleaning system on this line."

Alan Tinker
Support Engineer - Polyflor 25-Year Club



40-Year Club

"I started at Polyflor in October 1978 as a warehouse assistant in Whitefield. After about a month I moved in the export department, which at the time was only a small side of the business. I then moved from the warehouse to the office, where I am now employed as an export facilitator at the Royton office."

"There have been many highlights during my 40-year employment, in that I have been on business to Spain, Germany and the USA. However, the main highlight and privilege was representing Polyflor for the Queens Award to Industry and meeting the Queen and Prince Philip at Buckingham Palace."

Lloyd Hyde
Export Despatch Supervisor - Polyflor 40-Year Club



43-Year Veteran

"As a 43-Year Veteran, I started at Polyflor in 1976, in Quality Control and after about a year I became the Chargehand in the colour room (or powder room). Not long after I was asked to run the Tile Press, again as a Chargehand, where we cut all our tiles. Within 18 months I was running one of the homogeneous (or smooth) production lines."

"By now Polyflor was developing the Polysafe product and I was asked to join the development team, which was exciting. Once the product took off, I went back to running the homogeneous production line, which was our premier plant. Many years passed, and I was seconded to start up a Training Department, handing out

N.V.Q Levels 1 & 2 to operatives. During which time I was awarded my 25-Year's Service by Geoffrey Halstead.

"Today I head up the Homogeneous Department and 3 years ago was awarded the prestigious 40-Year award, which was a great honour for me, the boy from Bellshill, Lanarkshire. I have enjoyed my time at Polyflor and I stated recently to our current Production Director, Steve Mulholland, that Polyflor and myself have been good for each other."

William Watt
Homogeneous Flooring Business Unit Manager

Commitment to our Communities

As a responsible manufacturer, Polyflor has a duty of care to ensure that the impact of day to day operations from its business to the local community is minimal.

As such the company has procedures and policies to address issues which may arise in line with ISO 14001 and BES 6001, including a robust complaints procedure. These issues are regularly reviewed at Environmental Steering Meetings and it is the responsibility of the Directors to initiate a project in instances where the source of a complaint is persistent and requires a solution. Where a complaint form is received the company has a formalised procedure as per its BES 6001 objectives to respond and action within 7 days of receiving it. The recording of these complaints is audited and reported on annually.

Polyflor's Whitefield site is the original production site and located within a residential area (the site is 100 years old and older than many of the nearby houses). For this reason, continued efforts to reduce noise pollution and emissions remain important for harmonisation between this production site and its neighbouring residents. As well as ensuring HGVs turn off engines during evening and early morning deliveries and collections, investment has also been made into acoustic engineering and into new electric forklift trucks, to help minimise noise levels.

Despite Polyflor's best efforts to prevent complaints in the first instance, they can fluctuate year on year, with the nature of complaints (some unjust, some ongoing) sometimes being difficult to control. Polyflor strives to minimise such complaints and continues to interact closely with the community. 5 complaints were received in 2018 and were promptly handled. This was a 44% reduction on 2017 and was one of the best years for low complaint levels over the last 6 years. All complaints pertained to noise issues and of the 5 complaints logged, there were only 2 unique complaints - a 71% improvement on the previous year. Given the proximity of the 100s of residents to this 24-hour (Monday to Friday) production site, we believe this is acceptable, but of course we do everything possible to prevent complaints from the outset.

As part of ongoing CSR commitments, Polyflor continues to liaise with and support the local communities in which it operates. It is particularly important to give something back to local communities, as well as contributing to causes further afield. We encourage our staff to engage with charitable organisations and events, as well as supporting individuals on a charitable basis, either financially or enabling volunteer work.

When we are involved in donating flooring to charitable projects, the marketing, sales and distribution teams invest time through support and communication: They work together in arranging a suitable product, ordering and despatch. There is a duty of care in ensuring

the right flooring is specified and followed up with appropriate customer aftercare. Additional time is allocated through volunteer work and 37 hours were accrued in 2018, in the UK alone.

In 2018, Polyflor supported over 20 charitable projects, by raising over £4,000 and donating almost £9,000 to numerous individuals, groups and organisations in the UK, including a Homeless Shelter in Cardiff and Llwynypia Boys' & Girls' Club, South Wales. Here are some of our highlights for the year:

Supporting our local communities

Polyflor Community Fund

In 2018, Polyflor asked employees to vote for their favourite charity, out of a list of selected options. We donated £500 to the winning charity and £250 to two runners up:

WINNER: Bleakholt Animal Sanctuary

Bleakholt Animal Sanctuary is a charity committed to caring for dogs, cats, equine and farm animals and small pets, with the aim of rehoming. www.bleakholt.org

RUNNER UP: Mahdlo Youth Zone

Mahdlo is a registered charity and state-of-the-art Youth Zone in the heart of Oldham for 8 to 19-year olds (up to 25 for young people with a disability). Open 7 days a week, 52 weeks of the year, they offer activities, counselling and opportunities that all young people from across Oldham can access for just 50p. <https://www.mahdloyz.org>

RUNNER UP: CHILD Deaf Youth Project

CDYP provides a range of educational and social activities, in a relaxed and friendly atmosphere, where youngsters can develop and gain skills and enjoy a positive experience. There are Youth Clubs and Summer Play Schemes for youngsters aged 11+. www.cdyp.co.uk



Bleakholt Animal Sanctuary

★ WINNER ★

Bleakholt Official @BleakholtUK
Thank you so much @polyfloritd It really will make a difference. Congrats too to the wonderful @mahdloyz



Mahdlo Youth Zone

RUNNER UP

Mahdlo Youth Zone @mahdloyz - Jan 8
Replying to @Polyfloritd and @BleakholtUK
Was lovely to see you and show you around. Huge thanks again for your support and helping to change the lives of Oldham's young people #OldhamHour

Volunteering in the Community

Polyflor enabled and supported staff in numerous voluntary work projects, to help various charities raise necessary funds. This included time dedicated to running our annual MacMillan Cake Bake and various activities throughout the Children in Need day. Staff from Polyflor also volunteered with the week-long Bury Arts Festival, including all the planning meetings prior to the event, to help raise funds for Bury Hospice.

Team Polyflor go the distance - Polyflor sponsored 15 of its staff, to put on their running shoes and complete the 10k race in Manchester city centre. The team raised a fantastic **£1,700** for Bury Hospice, Greater Manchester.



National Support



Children in Need

We raised **£1800** for Children in Need through various activities on the day, including staff dressing up as children's characters, a cake sale, raffle and a car wash. Our efforts will have contributed to many charities on our doorstep, as well as throughout the UK.



Theatre for Life CIC

Polyflor made a financial contribution to the Theatre for Life CIC, a Community Interest Company reliant on income from the workshops, funding and donations to help run the free Youth Theatre & Community Projects. It supports local performers aged between 14 and 25 years old, in the Southampton area, with the aim of creating inspiring and challenging theatre that is innovative and collaborative, whilst building confidence and performance skills.

www.theatreforlife.co.uk

"I just wanted to say thank you so much for your generous donation on behalf of Theatre for Life CIC. Please be assured that your donation will be helping young theatre makers from disadvantaged communities in Southampton to improve both their understanding of mental health, whilst developing life skills and raising aspiration."

In addition to this, the funding will also be supporting our audiences with mental health prevention, which we feel is incredibly timely with the rise in mental health statistics across the country."

Michelle Smith, Artistic Director, Theatre for Life CIC

International Support

In addition to the UK's CSR activities, Polyflor continued to support many worthwhile causes globally. Here are some of the great examples from 2018:

Australia

Polyflor donated time and money towards a host of charitable projects including Nulsen Disability Services; helping raise awareness about homelessness and sponsoring Beaconsfield Junior Football club, which accommodates 530 Junior Players, fielding 25 junior teams inclusive of female teams. Polyflor hosted a quiz night for The Shenton Park Dog Refuge and raised over 250.00 AUD as well as regularly volunteering with a New South Wales cancer charity called Pink Finns who assist women undergoing cancer treatments.

Expona Simplay was also donated to Ronald Macdonald House in palm cove, to help families with the grieving process after the loss of a child. The family is booked in for a week at the unit within a resort in palm cove. Activities and visits are organised such as barrier reef trips and spa days. All expenses are covered from the minute they walk in to the minute they leave.

Norway

Polyflor Nordic donated flooring to Estlandshjelpen (Eagle Mission International), a charity which collects clothing, furniture and building materials. These goods are then donated to less fortunate people and communities across Europe, the Middle East and Africa.

South Africa

Polyflor South Africa donated flooring to a selection of worthwhile causes in 2018, including the following:

140m² of XL PU to Headway Natal, a non-profit rehabilitation centre for brain injury and stroke survivors and their families and carers. www.headway.org.za

280m² of XL PU, with a coving and capping strip to Heart Capital Community, a low-cost community housing project who do amazing work. www.heartcapital.co.za

60m² of XL PU to Maitland Cottage Home, the only dedicated paediatric orthopaedic hospital in the Southern Hemisphere. www.mch.org.za

New Zealand

Polyflor New Zealand supported 'Eat My Lunch', a charity which provides lunches to hungry kiwi school kids, who would otherwise go without: 1 in 4 New Zealand children live in poverty and thousands go to school without lunch every day. 2,830 children are supported each day with lunch.

On Friday 17th August, Polyflor New Zealand employees volunteered some time to help this worthwhile charity and made school lunches for underprivileged children. For every meal a customer buys a lunch is given to a hungry school kid



"The Give lunches are made fresh every day, packed with veggies and protein. The menu is designed by Michael Meredith and changes every day for variety. The lunches require no prep from the teachers and are packed in brown paper bags with no branding, so it looks like something the kids could have brought from home themselves. The Give lunches are made by volunteers, this gives people the opportunity to see first-hand what goes into the Give lunches, how they are delivered to schools and how our operation works."

Lisa King, founder, Eat My Lunch

Economic Sustainability

Over the last 100 years the expansion of Polyflor’s parent company, James Halstead PLC, has been managed by four generations of Halstead’s. Established by James Halstead himself in 1915, the company’s original trade was the waxing and showerproofing of cloth for raincoats, before expanding into flooring in 1934. Today, Polyflor is an increasingly successful company, providing economic and environmental sustainability.

Our strategic focus remains on flooring, although the strategy evolves over time, focus on sustainable growth is undiminished. This, therefore, underpins job security for Polyflor employees and benefits all stakeholders in the business.

Polyflor goes from strength to strength as a global organisation with a dominant market share in the UK and listed on the AIM market of the London Stock Exchange with a nine-figure turnover, where it celebrates 70 years as a listed company.

Despite the continued economic uncertainties of leaving the EU, record turnover and profits were achieved. The UK market remained buoyant and our export business performed very well with increased turnover within our international markets - with significant growth for our Australian, Canadian, French and Norwegian subsidiaries.

Polyflor’s economic sustainability, growth and success are largely attributed to the depth of its customer focus. Polyflor has strong relationships throughout the supply chain and does not price-fix or undermine pricing structures, ensuring economic sustainability for our customers globally.

Polyflor’s ongoing commitment to Research and Development through advanced technology has resulted in the creation of innovative and market leading products, with New Product Development at the core of Polyflor’s business philosophy.






Polyflor continues its investment in Recofloor, the UK’s leading recycling scheme for waste vinyl flooring. As one of two founder and funding members, our dedication and investment are implemented through financial and operational support across the scheme. Recofloor is a cost-effective solution for managing waste. It is free if waste is taken to a distributors’ drop-off site, or a nominal cost is applied if waste material is collected from a specified site - this offers a saving of up to 70% when compared to landfill, which is financially beneficial for our customers.

Polyflor is a major employer in Greater Manchester and Teesside, providing jobs within sales, marketing, graphic design, human resources, I.T, purchasing and finance, as well as production, engineering, technical, warehousing and distribution. Our uncompromised business ethics ensure that we minimise risk wherever possible, given the responsibility we have within the supply chain and to our employees. As a supplier we try to ensure timely deliveries and as a customer, timely payments, without imposing unrealistic payment terms. As a medium sized UK manufacturing company, we continue to pay fair and competitive salaries to our employees as well as paying tax in the UK, thus fully supporting the UK economy.

Our Credentials Guide


Sustainability & CSR





Environmental and Corporate Social Responsibility management ensures continual development and progress, where it matters. The external audits and certification listed, assure that this is our priority and we will continue to report transparently on key metrics regarding our culture, operations and stakeholder engagement.

Certification	What it means
ISO 14001 	ISO 14001 sets out the criteria for an Environmental Management System (EMS) and maps out a framework for a company to follow in setting up an effective EMS.
ISO 9001 	ISO 9001 is a certified quality management system (QMS) for organisations who want to prove their ability to consistently provide products and services that meet the needs of relevant stakeholders.
BES 6001 	BES 6001 is a framework Standard from BRE Global, for Responsible Sourcing, along with an associated independent third-party certification scheme. BES 6001 will help organisations manage and reduce the impacts throughout the supply chain. The scheme is recognised by the BREEAM family of certification schemes and the Code for Sustainable Homes where credits can be awarded for construction products independently certified through BES 6001.
SA 8000 	SA 8000 is an international, auditable social certification standard for decent workplaces, across all industrial sectors. It is based on the UN Declaration of Human Rights, conventions of the ILO, UN and national law, and spans industry and corporate codes to create a common language to measure social performance.
BS OHSAS 18001 	BS OHSAS 18001, a framework for an occupational health and safety management system.

Environmental Life Cycle Analysis





Environmental LCAs are important in creating a level playing field for comparing products’ environmental impacts and performance, enabling customers to make informed choices for specification.

Certification	What it means
BRE 	The BRE (Building Research Establishment) is an independent organisation which evaluates the environmental impact of a product. Using a Life Cycle Analysis (LCA) over a building life of 60 years, materials are assessed on their impact against a series of environmental criteria and performance is rated from A+ to E. Individual assessments relate to specific production data for the product, whereas generic ratings are derived from industry-wide production data and averaged.

<p>IBU EPD</p> 	<p>Polyflor's product specific EPDs are verified by IBU (Institut Bauen und Umwelt e.V.) - an independent, environmental organisation which works closely with construction and environmental authorities in Germany. Product specific EPDs available on www.ibu-epd.com/en/published-epds</p>
<p>ERFMI EPD</p> 	<p>Generic EPDs are available via ERFMI (European Resilient Flooring Manufacturers' Institute), which provide transparency on environmental impacts. Generic EPDs available on www.ibu-epd.com/en/published-epds</p>
<p>INIES FDES</p> 	<p>INIES provides environmental and health declarations of products for evaluating the performance of construction works. The INIES FDES is an independent third-party audit. To view FDES, visit www.inies.fr</p>
<p>GreenTag</p> 	<p>GreenTag is Ecospecifier's Conformity Assessment Body (CAB) and Polyflor's products are certificated to meet GreenTag requirements.</p>






Recycling

Recycling is as important to us as it is our customers - if not more so. In operating our own recycling schemes as well as being part of external recycling initiatives, we are fully committed to minimising our and our customers' environmental impact.

Organisation	What it means
<p>Recofloor</p> 	<p>Polyflor is co-founder and owner of Recofloor the UK's leading recycling scheme for smooth and safety offcuts and uplifted smooth vinyl flooring. This scheme is also used in Australia, New Zealand and Iceland.</p>
<p>Polyflor RVF SA</p> 	<p>The Polyflor Recycling Vinyl Flooring scheme is an independent recycling scheme in South Africa, collecting waste Polyflor vinyl flooring.</p>
<p>AgPR</p> 	<p>We work with AgPR (Arbeitsgemeinschaft PVC-Bodenbelag) to reclaim recycled vinyl flooring waste from Germany/EU.</p>
<p>PVC Next</p> 	<p>PVC Next is France's national waste vinyl flooring recycling scheme, funded by James Halstead France and 4 other manufacturers within the Kaléi association.</p>



Health


We want our floor coverings to be healthy for the environment and for our customers. Our ranges are non-shedding and do not harbour dust. They do not contain harmful substances; are REACH compliant and are certified to assure very low VOC emissions for best indoor air comfort and quality.

Certification & Authorisation	What it means
<p>IAC</p> 	<p>Indoor Air Comfort (IAC) product certification by Eurofins, provides compliance to low VOC (Volatile Organic Compounds) emissions requirements of European specifications. Indoor Air Comfort Gold certification shows a higher level of compliance, meeting criteria of many voluntary specifications issued by most relevant ecolabels and similar specifications in the EU. This is 'best in class' and good for indoor air quality, posing no risk to health.</p>
<p>FloorScore®</p> 	<p>FloorScore® product certification by SCS Global, ensures that certified flooring meets strict indoor air quality (IAQ) emissions criteria of LEED; CHPS; The Green Guide for Health Care, and is recognised by a long list of healthy building programmes.</p>
<p>Afsset</p> 	<p>Afsset (L'Agence française de sécurité sanitaire de l'environnement et du travail) tests construction products compliance to the French government's regulations regarding VOC and formaldehyde emissions.</p>
<p>M1</p> 	<p>M1 is the short version name of the Finnish voluntary emission classification of building materials. M1 is the lowest VOC emission class of that system.</p>
<p>REACH</p> 	<p>REACH is a European Union regulation concerning the Registration, Evaluation, Authorisation & Restriction of Chemicals. No harmful substances added, such as formaldehyde; asbestos and heavy metals. Plasticisers used by Polyflor are not classified substances and do not need authorisation under REACH. A range of mostly non-phthalate and ortho-phthalate plasticisers used across Polyflor's vinyl collection.</p>

Environmental Listings







Polyflor products are listed on various databases specifically for sustainable products, making specification options easier for green build projects.

Organisation	What it means
<p>DGNB</p> 	<p>Our EPDs are listed on the DGNB database DGNB (Deutsche Gesellschaft für Nachhaltiges Bauen e.V. / German Sustainable Building Council), which promotes sustainable and economically efficient buildings for the future.</p>
<p>BASTA</p> 	<p>Polyflor has registered, approved products on the BASTA database, BASTA is a non-profit organisation owned by IVL Swedish Environmental Research Institute and The Swedish Construction Federation.</p>

<p>Ecospecifier</p> 	<p>Polyflor is registered to Ecospecifier, a guide to eco and health preferable products, materials and technologies for the built environment.</p>
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Memberships & Associations

We like to be in the mix and keep abreast of current or potential issues and challenges, both within the industry and on wider environmental matters. This enables us to engage with stakeholders and react better to customer demands.

Organisation	What it means
<p>VinylPlus</p> 	<p>VinylPlus is the voluntary sustainable development programme of the European PVC industry. It aims to create a long-term sustainability framework for the entire PVC value chain.</p>
<p>Recovynl</p> 	<p>Recovynl is a PVC recycling scheme, set up to encourage companies to recycle post-consumer PVC. The aim of the scheme is to increase the amount of PVC recycled by establishing sustainable collection and processing arrangements.</p>
<p>Kaléi</p> 	<p>Kaléi works with the government and informs its members on regulations and standards and partakes in environmental policy, with a commitment to sustainable development.</p>
<p>UK Green Building Council</p> 	<p>The Green Building Council is a non-profit, non-government, membership organisation covering more than 90 countries. The body's main aim is to facilitate dialogue between industry and government to promote sustainability in the construction sector.</p>
<p>New Zealand Green Building Council</p> 	
<p>The Carbon Trust</p> 	<p>Polyflor is working with The Carbon Trust to reduce energy consumption. The Carbon Trust's Energy Management programme provides commercially viable solutions to help UK businesses and the public sector cut carbon, energy and costs.</p>
<p>UKRFA</p> 	<p>UKRFA (United Kingdom Resilient Flooring Association) - UK trade association for the resilient flooring sector.</p>

<p>ERFMI</p> 	<p>ERFMI (European Resilient Flooring Manufacturers' Institute - ensures the maintenance of high ethical standard within the industry.</p>
<p>SAVA</p> 	<p>The Southern African Vinyls Association (SAVA) is a representative body for the local vinyl industry fulfilling an active role in the sustainability of the industry.</p>
<p>Dementia Action Alliance</p> 	<p>Member of the Dementia Action Alliance which is committed to transforming the lives of those living with dementia in the UK, and partner of the International Dementia Design Network, hosted by the University of Salford.</p>

Awards





Polyflor and our co-owned recycling scheme, Recofloor, have won environmental awards over recent years and while it's not about winning awards - it's about doing the right thing - we are proud to be acknowledged and rewarded for our sustainability efforts and hard work.

Polyflor Awards

 <p>Polyflor UK Winner of Made in the North West Green Company 2015</p>	 <p>Polyflor South Africa Winner of SAVA's Innovation in PVC Recycling 2017</p>
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Recofloor Awards

 <p>Winner of CIWM (Chartered Institute of Wastes Management) Award for Environmental Excellence in the category of SME Innovative Practice, 2010</p>
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 <p>Winner of Let's Recycle Award - Excellence in Recycling & Waste Management 2016</p>	 <p>Winner of Gold International Green Apple Environment Awards 2013, for Environmental Best Practice</p>	 <p>Winner of MEN (Manchester Evening News) Environmental Business of the Year Award 2014</p>	 <p>Winner of BCE (Business Commitment to the Environment) Premier Award 2011</p>
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**PROUD
TO BE
POLYFLOR**

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