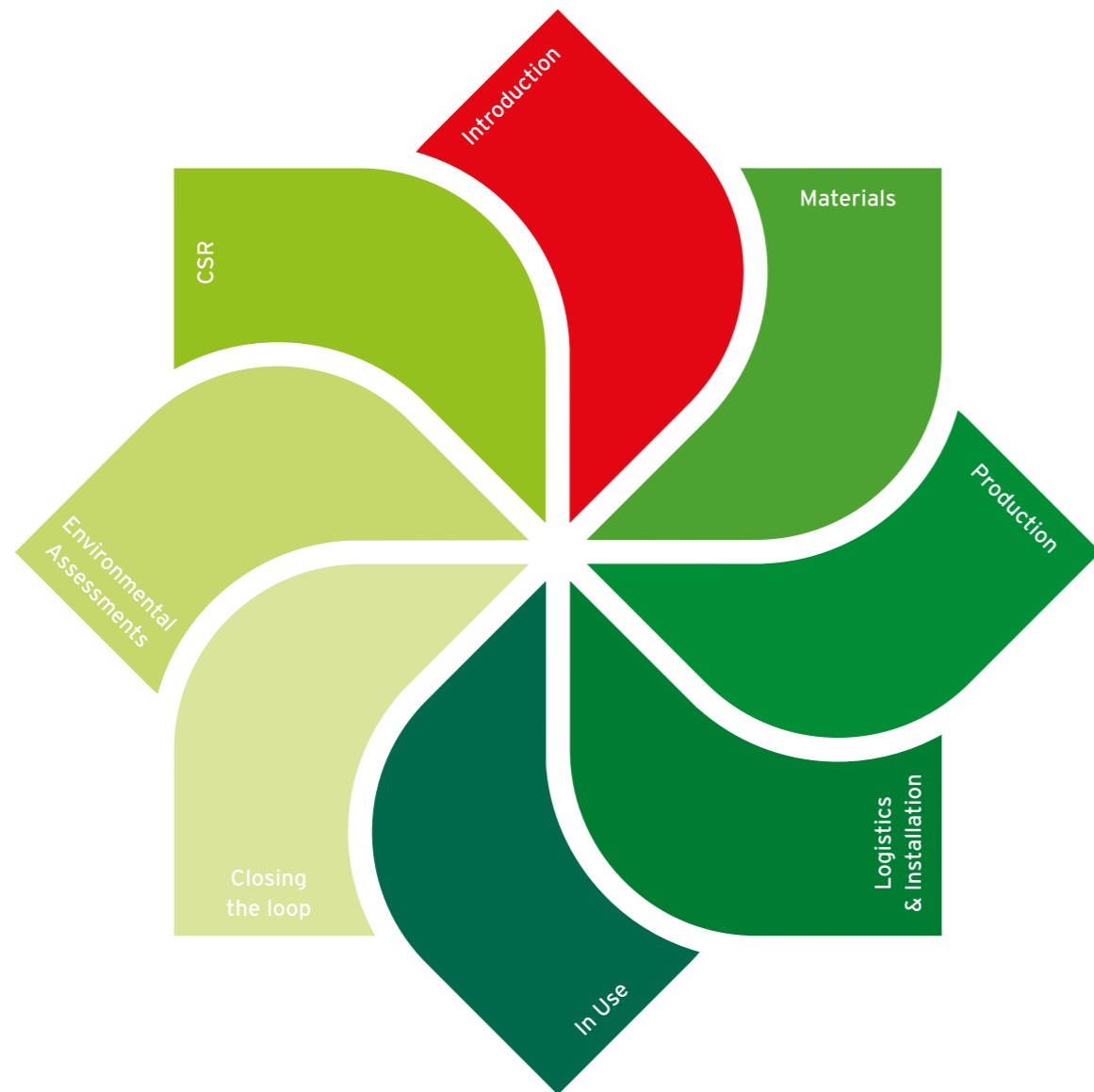




# Sustainability Report 2017

Environmentally Preferable Flooring



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# Introduction

Welcome to our 12<sup>th</sup> annual report. This report sets out to openly communicate our sustainability performance for 2016 to all our stakeholders.



“Sustainability at Polyflor is not the responsibility of just one person, it is driven from the top down with all staff members fully on board and ‘doing their bit’. With this in mind, Polyflor’s hard work and commitment has successfully secured

corporate social responsibility (CSR) credentials – covering environment, quality and responsible sourcing – and overall progress.

“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 without partiality and try to identify how we might improve 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. We were 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; first flooring manufacturer to roll out a recycling initiative inclusive of site collections and distributor drop-off sites and first flooring manufacturer to achieve GreenTag LCARate certification.

“I’m proud to announce some significant accomplishments for Polyflor in 2016, including Polyflor South Africa launching the first official recycling scheme for the local vinyl flooring industry. Our commitment to recycling efforts here in the UK were also rewarded, with Recofloor winning the Let’s Recycle Award for Excellence in Recycling and Waste Management. Other notable achievements include improving the environmental performance of our fleet through Euro VI engines; and our CSR programme helping numerous worthwhile charities both locally and further afield.”

**Mark Halstead, Group Chief Executive, James Halstead PLC**



# 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 Environment, People and Economic sustainability.

- The avoidance of emissions to the ecosystem.
- 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.
- Active participation in industry initiatives and projects that improve environmental impact.
- Careful selection of materials, processing techniques and state of the art technology to reduce environmental impact.
- Compliance with circular economy principals:
  - Reduction of waste to a minimum
  - Conservation of resources by use of recycling
- Engaging and raising environmental awareness by regular and open communication with all stakeholders.
- To go above and beyond in the communities in which we operate.
- Best practice procurement and business ethics.

We have assessed our operations and as a result have identified environmental impacts of the business. It is the responsibility of Polyflor Senior Management to systematically examine their business operations and identify possible and actual effects on the environment. For further details on Polyflor’s environmental impacts assessment and methodology, visit [www.polyflor.com/sustainability](http://www.polyflor.com/sustainability)



# Sustainable Progress

Polyflor has for many decades been recognised as a leading global manufacturer of high quality, high performance sustainable floorcoverings.

## Polyflor's highlights for 2016\*:

### Resources

- More daylight ports were installed to maximise natural lighting.
- Existing lighting was replaced with new LED lighting, operated with sensors.
- Weekend switch off schedules were issued for Whitefield plants.
- 1.4% decrease in water use.
- Our total waste tonnage fell by 8%.
- Net waste decreased by 24% and as a percentage of manufactured vinyl flooring fell to 2.5%.
- 88% of the total waste stream was recycled, against 85% in 2015 and 83% in 2014.

### Transport

- HGVs within the fleet were replaced with modern, Euro VI engines, resulting in much lower emissions.
- Backhaul operations increased, removing in excess of 465 HGV journeys from the road network.

### NPD

- Launched in August 2016, Bloc PUR is part of our family of environmentally sound heterogeneous flooring. It has a PUR reinforcement for low maintenance and it is a solid colour sheet flooring which can reduce wastage - although it can be recycled.

### Recofloor & International Recycling Schemes

- Recofloor had a record year where 508 tonnes of post-consumer waste vinyl flooring were recycled - a 3% increase.
- Recofloor recruited 69 new collectors.
- Polyflor South Africa launched the first official recycling scheme for the local vinyl flooring industry.

### Assessments & Awards

- Expona Control achieved individual BRE certification, achieving A+ in key use areas. Polysafe Wood fx PUR; Polysafe Wood fx Acoustix PUR; Expona Bevel Line PUR; Camaro PUR and Expona Commercial also improved their scores within some of the sectors.
- Recofloor won the Let's Recycle Award for Excellence in Recycling and Waste Management.

### CSR

- 31 new recruits and 50% increase on internal promotions.
- There were 8 new members to our 25 Year Club and 4 new members to our 40 Year Club, totalling 81 and 9 members respectively.
- In 2016 employees undergoing further training increased by 9%.
- Through BES 6001 objectives, developments to our supply chain management led to improvements with our raw material suppliers, with 100% having ISO 9001; 91% holding ISO 14001 and 83% achieving OHSAS 18001 approval. This was an increase of 10%, 1% and 108% respectively.
- Polyflor continued to liaise with and support its local communities, this consisted of charitable donations, volunteering and fostering better relationships with immediate neighbours (notably there was a 50% reduction on complaints - the lowest number in 7 years).

\*Data increases or decreases are compared with 2015.

# From 1915 to the present date

1915

Lodge water is used on site to harvest rainwater for production.



1950

Post production vinyl is recycled.



1992

ISO 9001 quality certificate attained.



1998

Polyflor's first low maintenance PUR products are produced, reducing environmental impact.

2000

Polyflor gains ISO 14001 environmental certification.  
Polyflor signs up to the Vinyl 2010 commitment.



2003

First Environmental Brochure produced.



2005

First products are individually assessed by BRE Global.  
First VOC emissions tests.



2012

SimpLay, loose lay LVT is launched - adhesive free for reduced environmental impact.

3rd party EN15804 EPDs available.

Indoor Air Comfort Gold VOC certification is available.

AFSSET indoor air quality labelling starts.

Recofloor has 1st Annual Awards Ceremony.



2011

Polyflor's new fleet has Euro V compliant engines for reduced emissions.

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.



2010

LVT ranges achieve BRE A+ individual ratings.

First products achieve GreenTag LCARate certification.

Recofloor is set up in Australia and New Zealand.

2009

Polyflor cofounds and invests heavily in the Recofloor vinyl flooring recycling scheme for post-consumer waste.



Recyclable paper packaging used, replacing plastic roll wrap.

Polyflor products go onto Ecospecifier database.

FloorScore® VOC certification is achieved.

2008

First VOC emissions certificates available.

2007

Polyflor joins a working group to recycle post consumer waste vinyl flooring.

Polyflor joins Recovinyl.

2013

Product Specific EPD's for three LVT collections Expona Design, Commercial and Domestic. Generic EPD's for all resilient flooring through collaboration with the industry body and partners within ERFMI.

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 24m<sup>2</sup>.

SA 8000 certification is achieved.

Obtains BES 6001 certification for Responsible Sourcing, achieving a 'very good' rating for LVT product ranges.

PVC Best Practice on Polyflor's homogeneous flooring ranges, independently verified by NCS International Pty Ltd.



2014

Launch of 'Maximising BREEAM Credits with Polyflor' document.

Polyflor becomes a member of the BREEAM EPD verification scheme.

Economiser installed on steam boiler increasing boiler water feed temperature to boiler, improving efficiency.

BES 6001 certification for Responsible Sourcing is obtained, achieving a 'very good' rating for most homogeneous, safety and heterogeneous products.

Camaro Loc PU is launched - adhesive free for reduced environmental impact.

Product Specific EPD for SimpLay, loose-lay LVT.



2015

Winner of 'Made in the North West - Green Company 2015'.

8 additional products individually assessed by the BRE - 34 ranges assessed and certified, 33 achieving A+.

Floor Cleaning & Maintenance Course launched to promote sustainable cleaning processes and maximise Polyflor floorcoverings' longevity.

Recofloor is rolled out to Iceland.

BS OHSAS 18001 is achieved.



2016

Recofloor wins the Let's Recycle Award for Excellence in Recycling & Waste Management.

Recofloor has a record year, recycling 508 tonnes of waste vinyl flooring from the UK.

Polyflor South Africa launches first official recycling scheme for the local vinyl flooring industry.

Bloc PUR is launched - a low maintenance and solid colour sheet flooring to minimise wastage.

Polyflor's HGVs are replaced with Euro VI engines for lower emissions.

## 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."

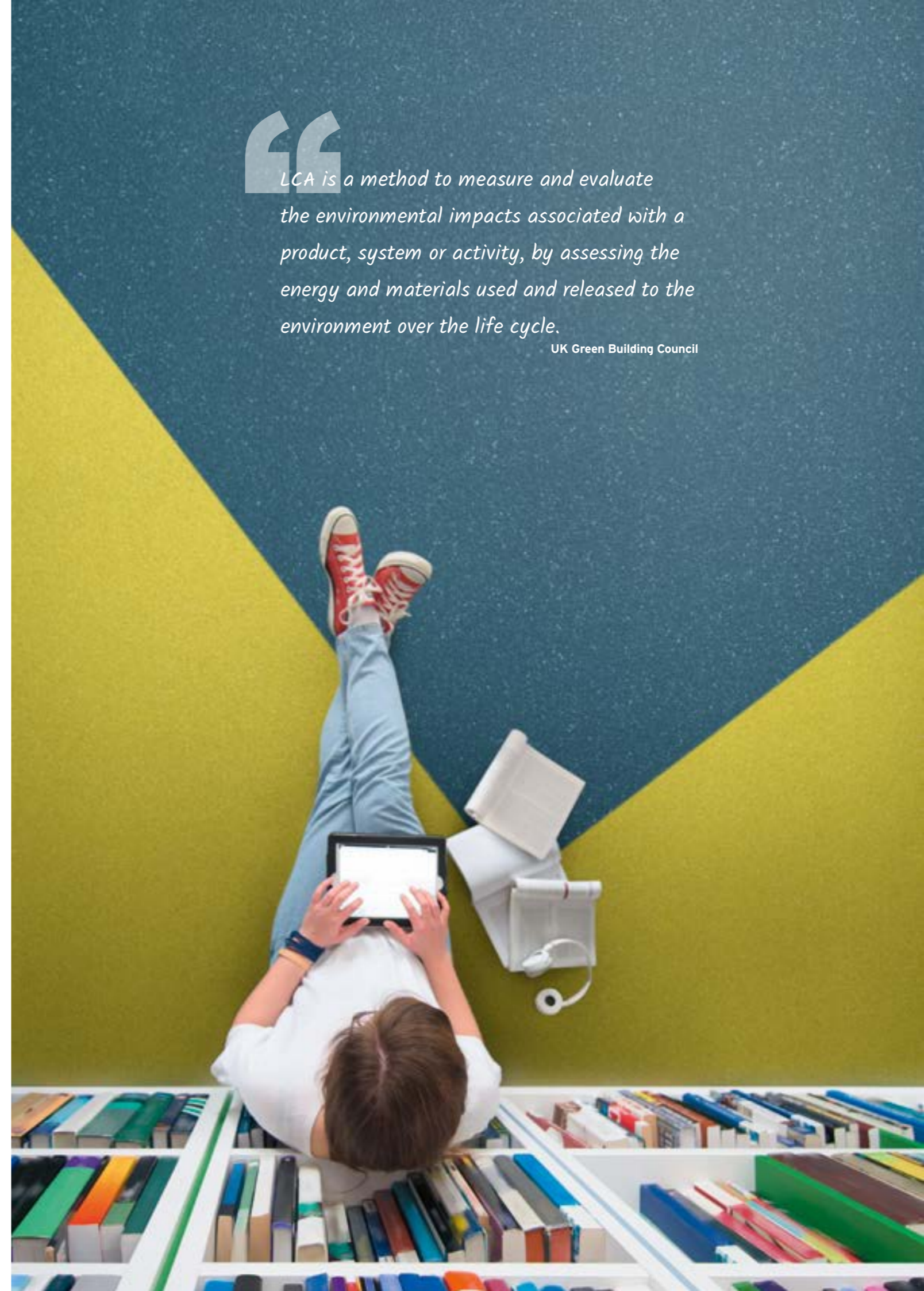
"In our experience of doing just that and hundreds of LCAs for products to be certified, sometimes the results are counter-intuitive. What we think based on commonly accepted norms is more 'sustainable' is demonstrably not always so."

**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



MATERIALS

IN USE



'very good' rating

1<sup>st</sup> flooring manufacturer to obtain this standard and achieve 'Very Good' rating

UP TO 40% recycled material

UP TO 85% sustainable material



Low VOC - Indoor Air Comfort Gold; FloorScore; AgBB



Less energy & chemicals



Less water



Extremely durable with fewer replacements required

UP TO 60% Maintenance cost savings

REACH compliant: No Restricted substances

Designatex Secura CAMARO™ LOC expONA SimpLay

Adhesive free ranges available

PRODUCTION

DISTRIBUTION

REUSE & RECYCLE



16,819 tonnes of CO<sub>2</sub> saved since 2012

15% less energy than linoleum to manufacture and 50% less than ceramic flooring

8% waste reduction in 2016 from 2015

waste reduction in 2016 from 2015

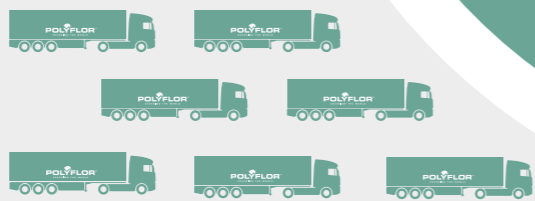
96% water supply from recycled water

water supply from recycled water

4% from mains



Product wrapped in paper with recycled content

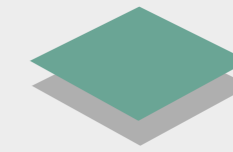


Polyflor owns it's own efficient fleet

HGVs have modern Euro VI engines



Backhauling removed in excess of 465 HGV journeys



Reuse Expona SimpLay

100% Polyflor vinyl is recyclable

Polyflor vinyl is recyclable

Polyflor is a cofounder of Recofloor!



Recycle vinyl offcuts & smooth uplifted vinyl

SAVE UP TO 75%



FREE use of distributors' drop-off sites or arrange collections & save up to 75%

3,208 tonnes of post-consumer waste vinyl collected since 2009 = 26,733 x 20m rolls – enough to cover:

150 football pitches





## 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. All of our vinyl flooring products contain up to 85% sustainable material, and are 100% recyclable. We strive to use renewable raw materials wherever possible, in particular, materials derived from waste streams, including post-consumer waste, such as crushed glass. All raw materials considered for use in manufacture are subject to rigorous scrutiny. This ensures all materials 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.**



*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 floorcovering 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. It is important to note that PVC is not a significant contributor of dioxin emissions - power stations and the steel industry are the biggest man made producers of dioxin emissions. 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 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.

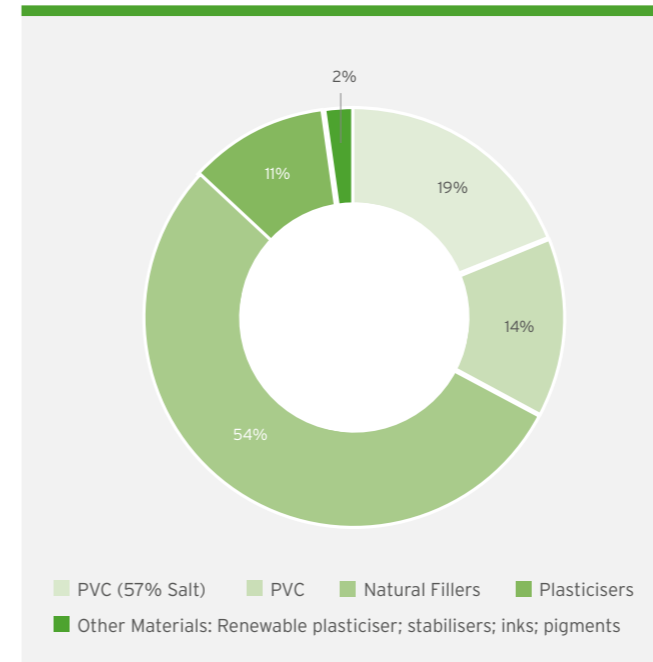
## Key Sustainability Credentials of PVC for use within the construction industry

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 floorcoverings use a high percentage of sustainable materials: For example, the homogeneous range uses up to 85% sustainable materials, including the salt content in the polyvinyl chloride resin (polymer) and the calcium carbonate in the filler.

## Breakdown of materials used in Polyflor Flooring\*



\* Raw material quantities vary across ranges. This is a typical representation for many of our products, although in some instances the filler content could be as great as 74%.

### 1. 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).

### 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



## Production

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

"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 101 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.**



*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.*

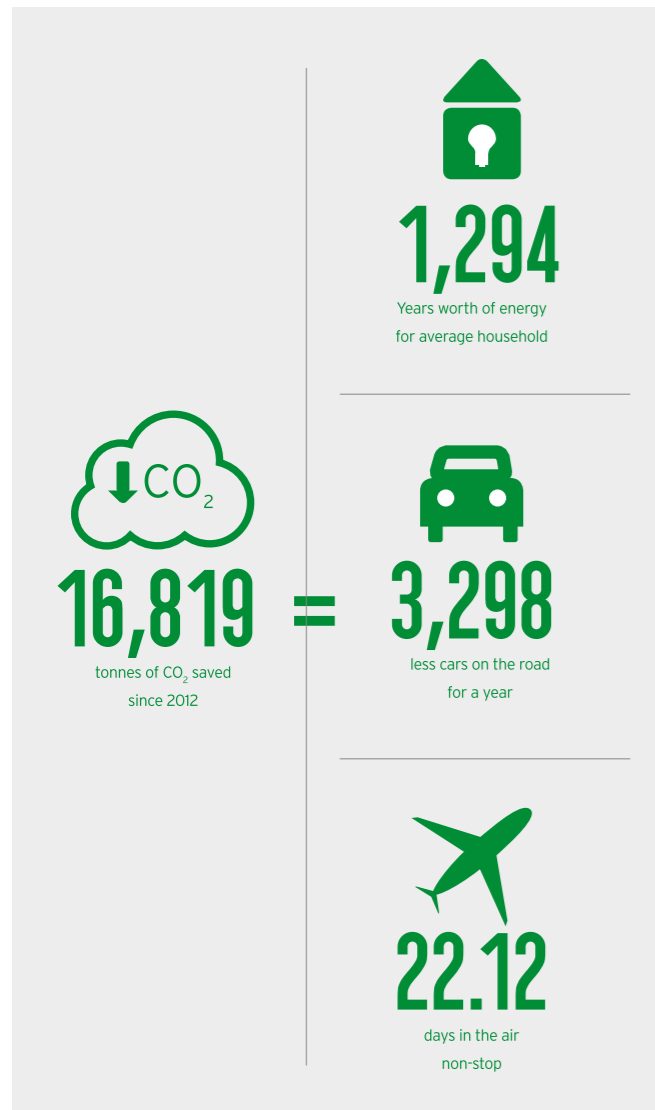
**Steve Mulholland, Manufacturing Director, Polyflor Ltd.**



# Energy Efficiency

From 2000 to 2011 Polyflor made significant progress in reducing its energy consumption, with reductions of over 43%. Carbon emissions were also reduced by 15,236 tonnes in this time. This reduction in energy used had a positive impact on greenhouse gas emissions and ultimately climate change. This has been and continues to be as a result of hard work on the company's environmental objectives.

From 2012 data is included for Polyflor's production site at Teesside, as well as the original site at Whitefield. For both sites, between 2012 and 2016, Polyflor has remained consistent in terms of energy usage per m<sup>2</sup> of vinyl flooring produced, maintaining its climate change agreements both at Whitefield and Teesside. During this time the company has also seen savings of 16,819 tonnes of CO<sub>2</sub>.



In 2016 Polyflor saved 570 tonnes of carbon emissions. The CO<sub>2</sub> reduction was less in comparison to previous years, but in view of Polyflor's vast efforts to reduce energy consumption and make improvements as per its targets, greater CO<sub>2</sub> savings have been more easily achievable in recent years, prior to 2016. The company's endeavours are persistent and progress continued, albeit at a slower rate in 2016. A number of Polyflor's ongoing projects include:

- More daylight ports were installed to maximise natural lighting.
- Existing lighting was replaced with new LED lighting, operated with sensors.
- 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.
- Investment in energy saving equipment, new chillers, etc.

### Polyflor 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 1 kg of frosted cornflakes, both at 1.9kg CO<sub>2</sub>. Recycled PVC is just 0.3kg CO<sub>2</sub>.

To put these figures into an everyday context:

- 1kg Lamb = 14kg CO<sub>2</sub>
- 1kg Cheese = 11kg CO<sub>2</sub>
- 1kg Aluminium = 10kg CO<sub>2</sub>

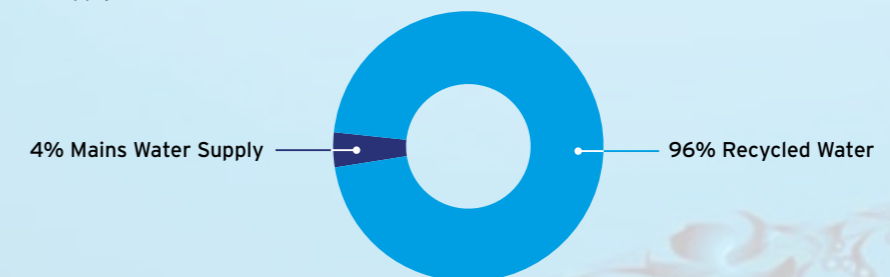
- Less energy to produce than other plastics, at least 15% less energy than linoleum and 50% less energy than ceramics, due to their lengthy processes in 'ovens'.
- Typical life of 20-25 years means fewer replacements so less energy to produce flooring for the life of the building.
- 46% of the fuel mix for electricity supplied to Polyflor comes from renewables, with 25% coming from natural gas.



# Water Use

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

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.



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 the last 5 years, but 2016 saw an overall decrease of 1.4% in water use compared with that of 2015.

Year	m <sup>3</sup>
2012	36,752
2013	34,347
2014	34,985
2015	38,279
2016	37,759

A number of initiatives to reduce water were implemented in 2016, including the following:

- A filtering system was installed to filter lodge water for one of the cooling towers, with the aim of substituting mains water with lodge water for process cooling. It is predicted that this has a potential to 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 capacity. 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.

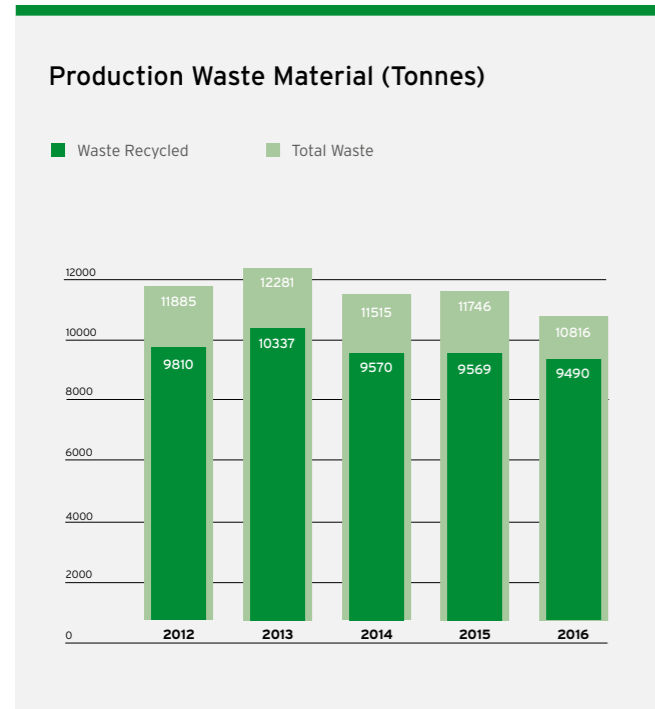
Other steps have recently been taken to ensure that water usage is minimised throughout production:

- 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.

In accordance with BES 6001, Polyflor's objectives to reduce waste to landfill in 2015 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. Limiting the potential for waste at the outset will continue to be a priority



Our total (or gross) waste figure decreased by 8% in 2016 compared to 2015, or by 12% against 2013. Due to our objectives and hard work, this was ultimately our lowest figure for many years. Our net waste tonnage figure - this is any waste we could not recycle - was down 24% and 38% in 2016, compared to 2015 and 2012 respectively. Crucially, over the last 5 years, this has consistently decreased. The net waste as a percentage of manufactured vinyl flooring decreased to 2.5% in 2016 - a further 4% reduction on 2014 or 40% improvement compared to 2012.

## Recycling

Investment is continually made to improve storage and handling facilities for subsequent waste on site, plus recycling will remain an

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

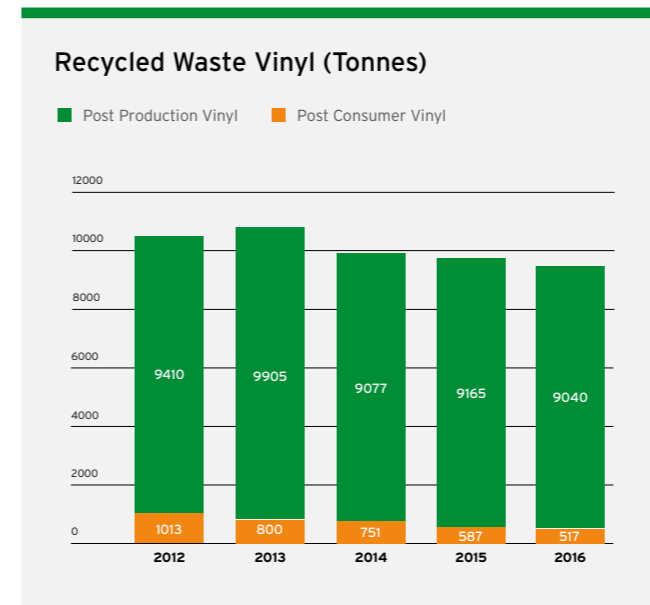
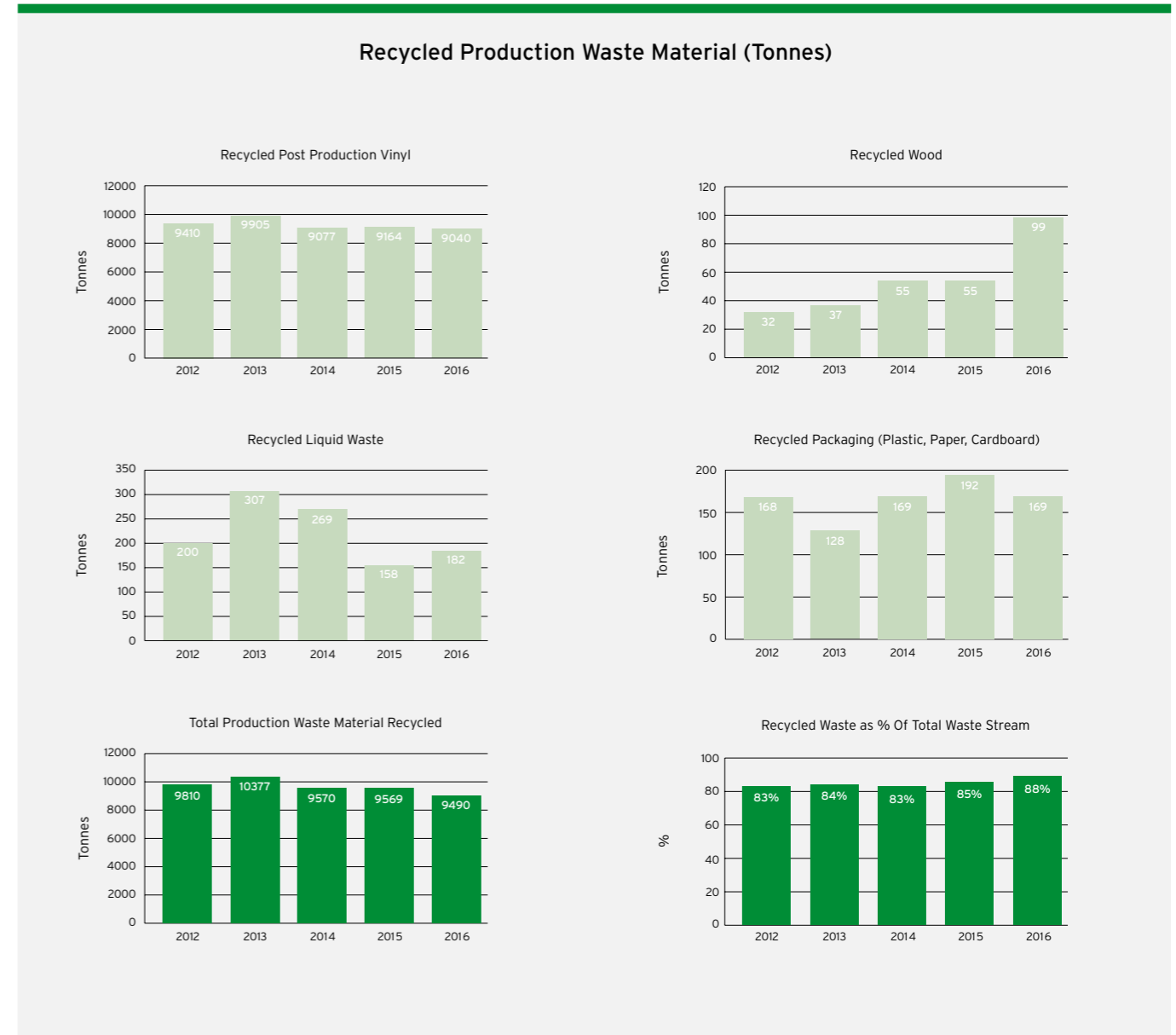
Post-production waste vinyl is generated on site from scrap material produced during and after production, this comprises vinyl chippings, clean trims and offcuts as well as recovered dust. We also recycle glass which is post-consumer waste, combined with the aggregates, into many of our Polysafe products. 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.

- Vinyl flooring is most suitable for recycling and is 100% recyclable.
- Up to 40% recycled material content.
- 25% average recycled content across Polyflor ranges.
- Up to 5% clean post-consumer waste is recycled across many Polyflor ranges.

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.

There were many positives with Polyflor's recycling data in 2016, compared with previous years. Generally, production waste recycled was a little less than previous years and down by 1% compared to 2015 although there were increases with wood and liquid recycling figures. Importantly, Polyflor had less waste to manage in 2016 due to the hard work on its environmental objectives. Furthermore the company recycled more in 2016 as a percentage of its waste stream; recycling 88% of its total waste stream, compared to 85% in 2015 and 83% in 2014.



## In the Future

Significant investment has already been made over recent years to improve our recycling capacity and capability, and we have committed to develop further, both on site and via the investment we make in Recofloor.

We will continue to fully utilise all options available in the recycling of post-consumer waste back into new product, although we must be mindful of legacy additives in the waste material which should be managed effectively. Returned material identification will continue to be a key factor in preventing materials being used in Polyflor flooring that may not be included.



## Logistics & Installation

The Logistics & Installation phase plays a part in Polyflor flooring's life cycle. Of course environmental impacts exist within this phase, which we are constantly striving to improve. This section outlines those environmental impacts, our performance against them and how we are looking to better our fleet, driver efficiency, distribution and develop sustainable installation processes - including adhesive free options.

"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 a mix of mostly Euro VI and some Euro V (which will be replaced in 2017) 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.**



*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.*

**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.

## 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.



## Distribution

As a UK manufacturer, Polyflor distributes product from its central distribution centre in the North West of England through a network of wholesalers throughout the UK and around the world, a model that ensures efficiency through the transportation of full, bulk loads.



## Transportation

Polyflor operates its own transport fleet in the UK which is maintained and updated as often as possible to ensure the most fuel efficient vehicles are used. Most of Polyflor HGVs have Euro VI engines, just 20% of the remaining fleet have Euro V and will be replaced in 2017. 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. Ongoing reviews are also in place for alternative transport methodologies and technology.



## 2016 Overview

In 2016 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.

After a very positive 2015, carbon emissions increased in 2016. This is an outcome we would want to avoid but overall, figures are similar to those of 2014. We can also identify why this happened and remain positive that improvements will be seen throughout 2017.

## Monitoring our Fleet & Logistics

The 20 vehicles in Polyflor's fleet travelled 1,632,716 kilometers and used 488,223 litres of fuel, which in turn produced 1,284,026 kgs of carbon emissions. Since 2015, that was an increase in kilometers of 9% (or 1% against 2014) and therefore 10% or 3% more fuel consumed (litres) than in 2015 and 2014 respectively. Consequently, this also raised our transports' carbon emissions by 10% and 2% compared to 2015 and 2014.

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.

The main factor affecting our performance for 2016 included a reduction in the number of bulk load orders which resulted in more journeys being made.

A positive for 2016, Polyflor's backhaul operation removed a minimum of 183 HGV journeys from the road network in 2016. Supplier collections (including Recofloor) increased by 51% against 2015, helping to maximise the use of empty Polyflor vehicles and reduce suppliers' vehicles on the road. Polyflor's backhauling therefore removed a further 282 supplier journeys from the roads.

The telematics function within the Polyflor HGV fleet monitored and

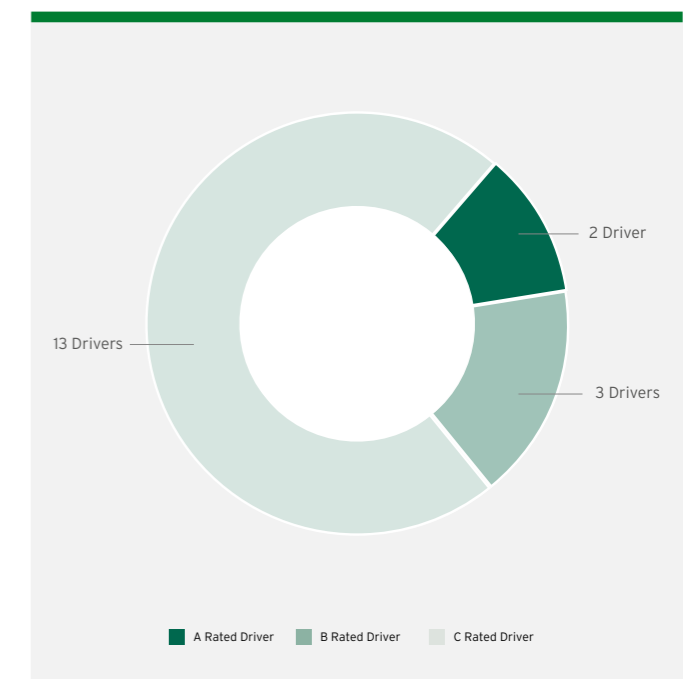
A benefit of vinyl flooring being much lighter than other flooring materials produces a positive outcome in transit, reducing fuel consumption.

assessed vehicle and driver efficiencies. Renewing 80% of the fleet to Euro VI engines, meant that changes to the telematics reporting criteria were implemented to improve miles per gallon.

## 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. Given the changes to the telematics reporting and the new fleet, the immediate effects of drivers scored on the MAN KPI system were noted, with more drivers achieving a C Rating than the previous year:

## 2015 drivers' scores



An additional Driver Assessor was added in 2016 to help improve operation's KPI's. Reflecting these positive changes, the signs are already optimistic.

## Installation and R&D

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.

### New Product Development

Launched in August 2016, Bloc PUR is a new addition to our family of environmentally sound heterogeneous flooring. Containing 10% recycled material, Bloc PUR is a solid colour sheet flooring, which can reduce wastage - although it is 100% recyclable through the Recofloor take-back scheme. It has been developed with a PUR reinforcement to ease maintenance, further reducing the environmental impact of its in use phase and comes with EN 15804 EPD and BRE A+.

### NPD with Dementia in mind

Polyflor continues to be a local and national member of the Dementia Action Alliance which is committed to transforming the lives of the 850,000 people living with dementia in the UK (Alzheimer's Society 2015).

This means that Polyflor has an action plan of commitment to improve outcomes for people with dementia in terms of support activity to the community and can feature the 'Working to become Dementia Friendly' logo 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.

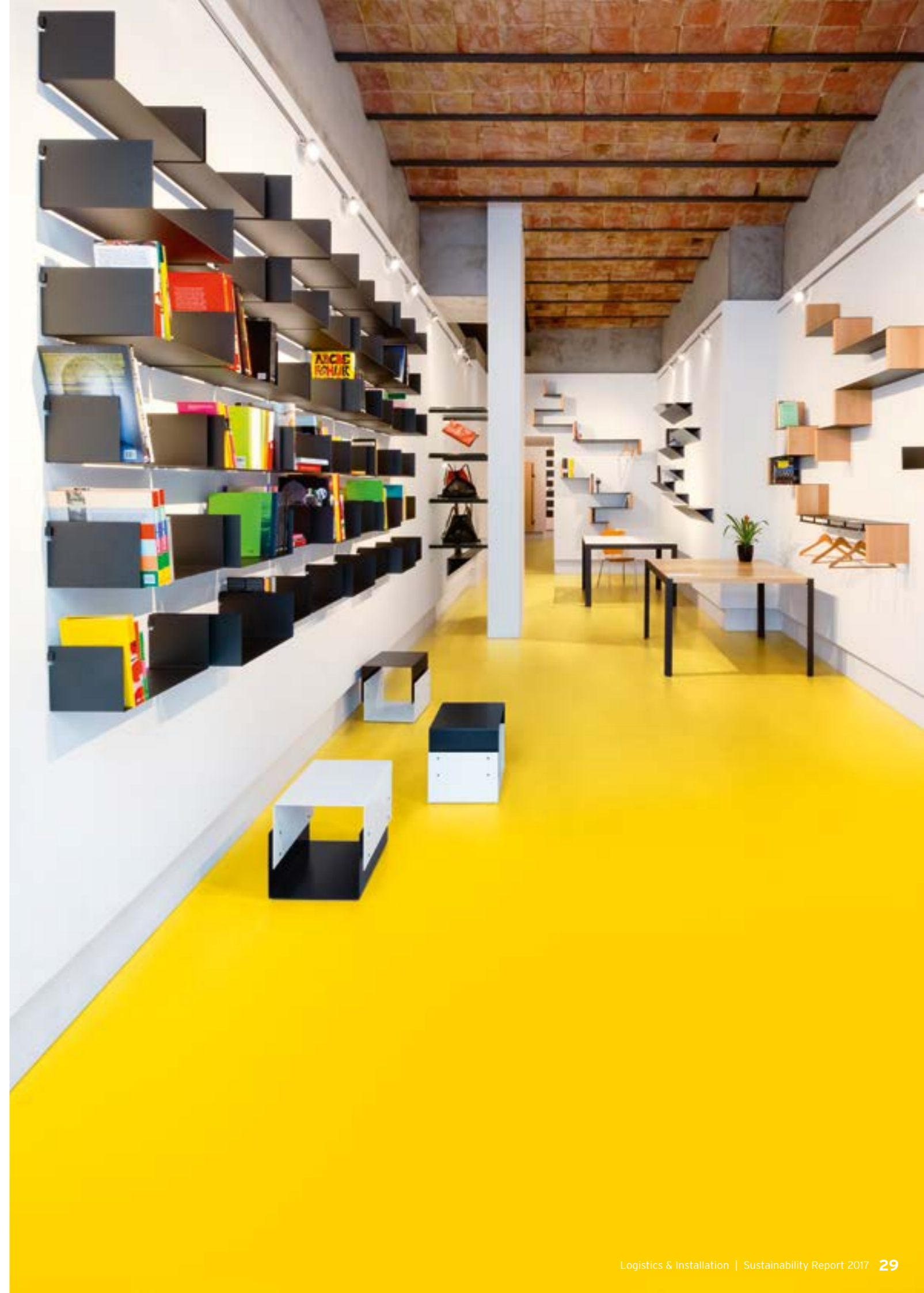
Polyflor is also a partner of the International Dementia Design Network, hosted by the University of Salford. Polyflor has an

objective to continually offer products that can contribute to a positive interior environment and make the experience of the person living with dementia more comfortable, adding to their quality of life whether at home or in care. Find out more about the DAA at [www.dementiaaction.org.uk](http://www.dementiaaction.org.uk)

Our research into dementia-friendly flooring and development of products suited to the healthcare sector has been recognised by our invitation to join the Society of British and International Design (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).

### Installation

Polyflor continues to develop and improve installation methods for its flooring ranges, with the increased use of solvent-free adhesives and adhesive-free vinyl flooring, such as Camaro Loc, Expona SimpLay, Secura and Designatex. The benefits of adhesive-free flooring can potentially lead to product being reused and not just recycled.





## 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 the cradle to grave process.

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.

Polyflor vinyl floorcoverings are extremely durable with 20-25 year lifespans if suitably maintained, although potentially it can be greater than this. In fact, our most recent example comes from Palmerston North Hospital, New Zealand, where Polyflor Standard XL was installed in 1974 and still looks good today. Effective maintenance and longevity are elements of the product's lifecycle that Polyflor are 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 floorcoverings' longevity.

*"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 innovates 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.**



*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.*

**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.

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: Our most recent example comes from Palmerston North Hospital, New Zealand, where Polyflor Standard XL was installed in 1974 - and is still looking great today!

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 covered. This flexibility also means that vinyl has much better recovery from indentation.

At Polyflor we are clear in our belief that there is no reason that our customers need to compromise on performance, choice or budget in order to use products with the lowest environmental impact.

We do not manufacture a specific range of environmental flooring, we manufacture vast ranges of the highest quality, BRE rated commercial flooring with a level of performance and benefits in use which also result in class leading environmental features. This philosophy carries on into all our new product developments where the demands of the customer, the facility and environmental requirements are built into the product specification from day one without compromising supply.

- 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.



# Safety Performance

Health & safety within the environment is an important factor to consider when selecting a floorcovering, 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. Some of the 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 goes hand in hand with ease of cleaning and many ranges in the collection feature 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. Compared to other materials vinyl flooring is slow to ignite in a fire - 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 United Kingdom workplace, accounting for 1 in 3 major injuries per annum (37% of all occupational injury accidents)
- 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.



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

## 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 floorcovering by using the correct cleaning methods and products. Correct maintenance facilitates a longer life, reducing costs and frequency of purchasing new flooring.

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).

## Creating clean and hygienic environments

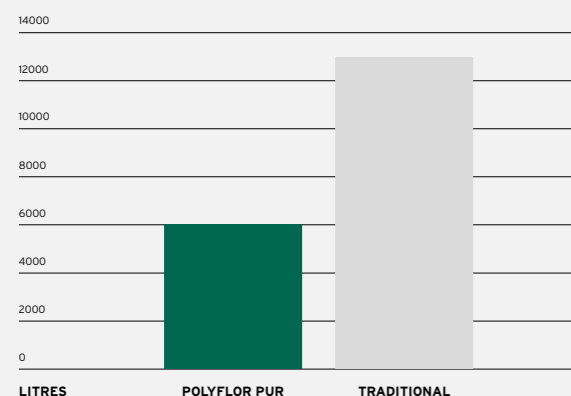
Vinyl sheet flooring can be welded at the seams, forming an impervious base that facilitates ease of cleaning by eliminating



*"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."*

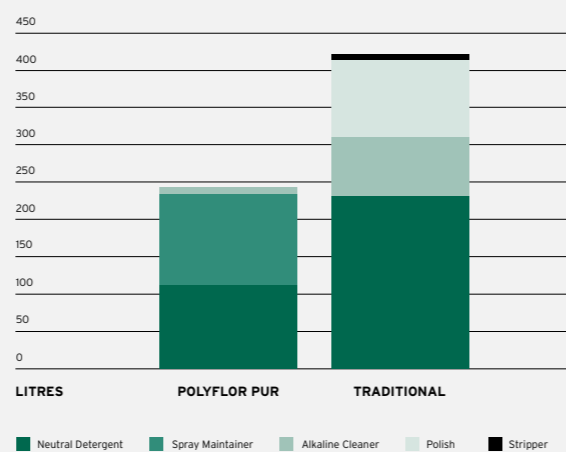
Daniel Neale, Yeovil District Hospital

WATER USAGE 1 year 1000m<sup>2</sup> PUR vs Traditional vinyl



55% less water

CHEMICAL USAGE 1 year 1000m<sup>2</sup> PUR vs Traditional vinyl



Polish free for life

# Dementia Friendly Flooring

A dementia-friendly interior design can have a real impact on the 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.

## Dementia in the UK

There are more than 850,000 people living with dementia in the UK alone and 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's one every three minutes. 1 in 6 people over the age of 80 have dementia.

## Dementia worldwide

There are over 6 million people with dementia in Europe and nearly 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. By 2050 it is projected there will be 115 million people with dementia worldwide - 71% will be from developing countries.

The total estimated cost of dementia worldwide is US\$604 billion (£380 billion). A 2012 report by the World Health Organisation 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)

With regards to the global increase of people with dementia, 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**

*"The flooring is a homely, easy to clean solution and the perfect complement to our bright dementia-friendly care zone. The finish of the floor is more matt and the tone of the floor is not too dark or too light, helping to avoid patients being distracted so that they become unbalanced. Some of our patients were immediately less anxious about this replacement floor, contributing to a more peaceful space that offers comfort and familiarity of home."*

**Jeff Moore, Project Manager at Croydon University Hospital**



*"We are continually impressed with the array of dementia-friendly flooring ranges available from Polyflor which means we can use their products throughout our homes to add to the positive ambience."*

**Jaqueline Ferguson, Design Manager at Hallmark Care Homes**

The following aspects of 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.
- 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.
- Use a product without sparkle as this can also make the floor look wet.
- The use of effects that replicate natural outdoor materials such as wood and stone promotes 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 and floors, as well as floors and furniture can help those who are visually impaired.
- 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.

Visit the **Healthcare Sector** at [www.polyflor.com](http://www.polyflor.com) for more information.

Polyflor also has a dedicated brochure and CPD, both of which cover our commitment to the dementia care sector.



*"The natural look of the flooring is familiar to our residents living with dementia, so it helps to project a relaxing and calming environment, contributing to reduced anxiety levels."*

**David Pointon, Business Support Manager at CLS Care Services**



*"The flooring chosen from Polyflor makes a real contribution to the overall space, helping create an airy feel that encourages residents to live as independently as possible."*

**Stephen Traves, Project manager at the Seren Group**

# 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."

All of 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; GBCA Compliant (Global GreenTag<sup>Cert</sup>™ approval); 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®, a performance-based system for measuring, certifying and monitoring aspects of a building that impact human health and wellbeing. Our certified products will also contribute towards the Health & Wellbeing (HEA 02) 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 AgBB, Indoor Air Comfort Gold, Afsset and FloorScore®.
- 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



# 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** CE Marking is the symbol shown here. The letters 'CE' are the abbreviation of the French phrase 'Conformité Européenne', 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.

- Water tightness (EN 13553)
- Slip resistance (EN 13893)
- Electrical behaviour (Antistatic EN 1815 or ISO 6356 - Static dissipative/Conductive floors EN 1081 or ISO 10965 dependent on product)
- Thermal conductivity (EN 12667)

EN 14041, the European standard relevant to the CE mark for floorcoverings, has been adopted and is now legally binding. Tests specified within EN 14041:2004 include:

- Reaction to fire (EN 13501-1)
- Content of Pentachlorophenol - PCP (EN 14041 Annex B)
- Formaldehyde emissions (EN 717-1 and/or EN 717-2)

Once the product is placed on the market with a CE mark the manufacturer must issue and sign a Declaration of Conformity, 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.

<b>CE</b>		James Halstead PLC, Hollinurst Road, Radcliffe, Manchester, M26 1JN, United Kingdom
14		EFL-DoP EN 14041 0338
		For use as floor covering in buildings <a href="http://www.polyflor.com">www.polyflor.com</a>



## Closing the Loop

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.

“Recofloor is an excellent demonstration of the circular economy in action. By working with the flooring supply chain and using the existing logistics network, Recofloor is collecting vinyl flooring waste that would otherwise end up in landfill. The flooring is recycled and manufactured into new products.

“Manufacturer take back is one of the corner stones of the circular economy, enabling the recovery of resources and their reuse in a second life and thereby helping all members of the supply chain including flooring contractors and distributors to become more sustainable and improve their green credentials.”

**Jane Gardner, Senior Manager, Recofloor**



*By working with the flooring supply chain and using the existing logistics network, Recofloor is collecting vinyl flooring waste that would otherwise end up in landfill. The flooring is recycled and manufactured into new products.*

**Jane Gardner, Senior Manager, Recofloor**



## Product Stewardship

It is important that we are responsible in the chain of custody of our products. With landfill being expensive and the least ecological option for waste management, recycling is a key element of Polyflor's closed loop operations and circular economy principals.

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.

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 various initiatives including:

- EPFLOOR, the European Flooring Manufacturers' Sector Group, which was formed to increase post consumer waste recycled in Western Europe.
- Recovinyl, a scheme which provides financial incentives to support the collection of PVC waste from the non-regulated PVC waste streams.
- Recovinyl 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

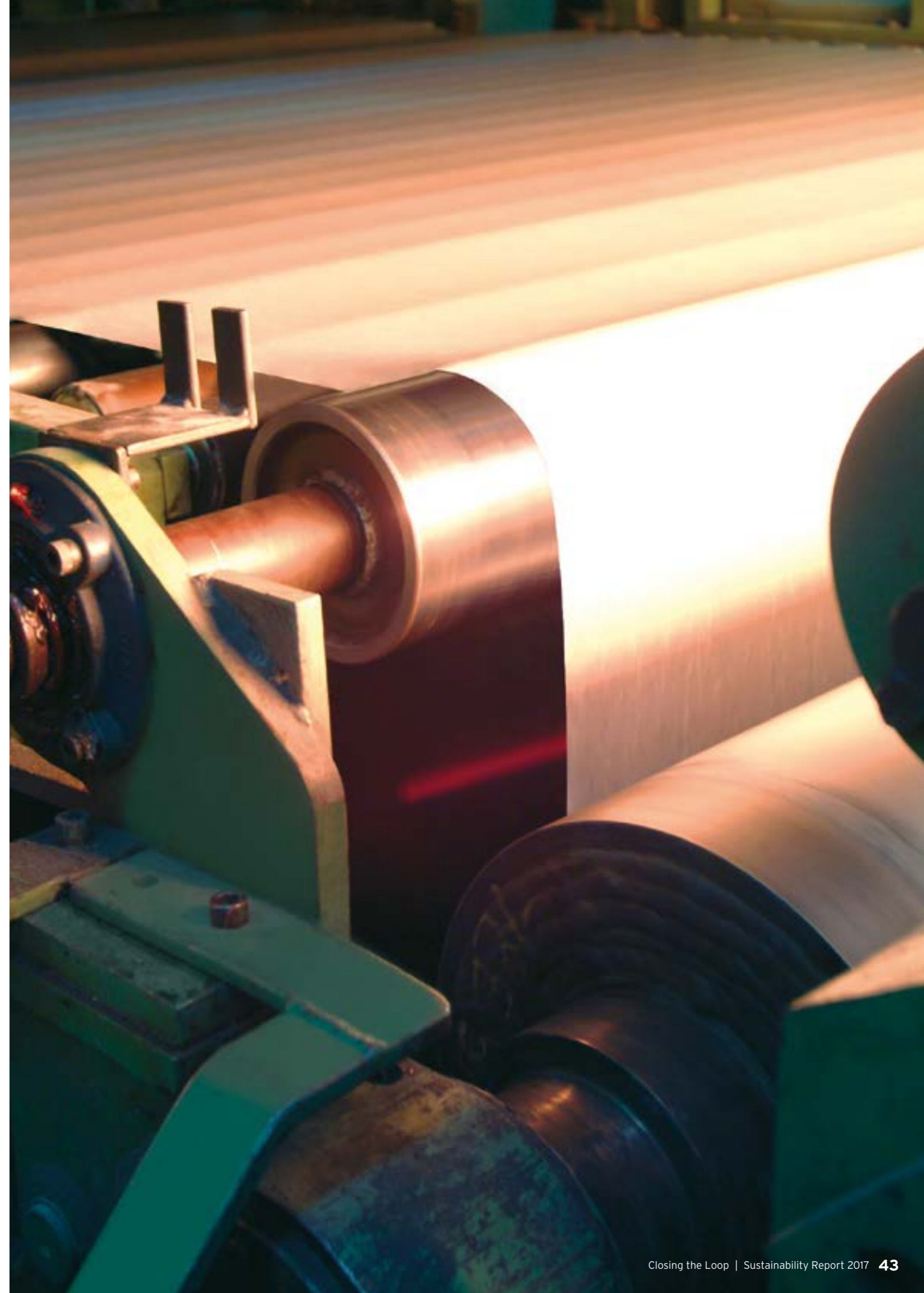
Natural Step System, with step one focusing on Controlled-Loop Management. Key objectives for this stage include:

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

Specific to vinyl flooring, Polyflor is also a proud funding and founding member of Recofloor, the waste vinyl flooring recycling scheme which is available throughout the UK, EIRE, 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. We also recycle glass, which is post-consumer waste combined with the aggregates into many of our Polysafe products.

### 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 volumes of post-consumer waste we recycle.



# International Schemes

The majority of our collections currently 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 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) 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 SFEC (Syndicat Français des Enducteurs Calandriers), James Halstead France (Polyflor's French subsidiary company) helps finance the French vinyl flooring recycling scheme, PVC Next, along with four other manufacturers within the SFEC association. Contractors must first register with PVC Next and at present there are 23 major contractors officially registered with PVC Next. Thereafter, smooth vinyl flooring offcuts and certain uplifted smooth vinyl flooring can be recycled at one of 19 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 m<sup>2</sup>. 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.

In 2016 around 500 tonnes of waste vinyl material was collected through PVC Next, a figure that should increase in the future as further marketing promotes the scheme encouraging more contractors to register and actively recycle their recyclable waste vinyl flooring.

## South Africa

2016 has been a significant year for Polyflor South Africa. Having launched the first official recycling scheme for the local vinyl flooring industry, Polyflor has delivered on the recycling commitments made as a member of the Southern African Vinyl Association (SAVA)

Since the scheme started towards the end of 2016, Polyflor SA had already managed to collect 2 tonnes of material with the aim of extending to more contractors countrywide early in 2017. Polyflor contractors will continue to be given 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.

"Recyclers of PVC products collect the material from our premises for recycling into a wide variety of products including gum boots. Our aim is to increase our recycling rate by 100% by the end of 2017."

**Tandy Coleman, CEO of Polyflor SA**

*"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**

## Recofloor Australia, New Zealand and Iceland

Polyflor Australia and Polyflor New Zealand continue to operate the Recofloor collection scheme, which is running effectively. Since 2010 they have recycled 112 tonnes and over the last few years have averaged 22 tonnes per annum.

2016 saw an improvement in operations with a view to increasing waste vinyl collections. The most significant change came from the introduction of 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.

2016 also saw Recofloor being implemented in Iceland with offcuts and smooth uplifted waste vinyl flooring being collected at Polyflor's main Icelandic distributor, Golfefnaval. With the support of Recofloor, the returning waste to the UK can be sent back and recycled at Polyflor.



# Recofloor

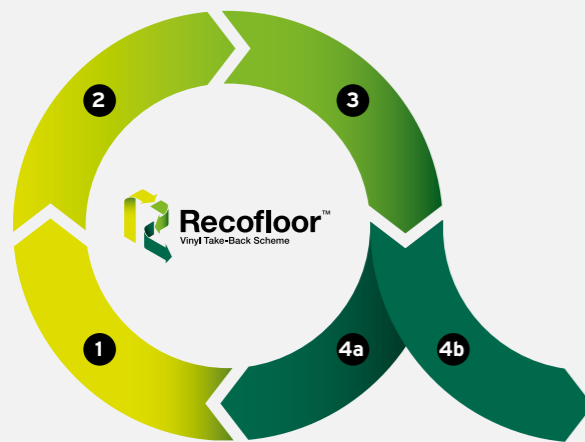
Although the flooring industry is not bound by law to recycle waste, Polyflor is actively seeking to recover and recycle its post consumer waste vinyl flooring to minimise the flooring industry's environmental impact and close the loop of our products' life cycles.

## 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.
- 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 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 75%.

For more information go to [www.polyflor.com/sustainability](http://www.polyflor.com/sustainability)  
Alternatively contact Recofloor directly on 0161 355 7618 or [www.recofloor.org](http://www.recofloor.org)



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

*BRE Global*

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

- Post installation, clean vinyl offcuts (smooth or safety vinyl)
- 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

### No Thanks

- Non vinyl flooring including linoleum, laminate, carpet, or flooring with jute/fabric backing
- Cushion vinyl flooring
- General waste including asbestos, rubble, wood, blades, nails, screws etc
- Liquids

## In The Beginning

A major challenge in the recycling of post-consumer waste was the logistics of retrieving the material, rather than actually recycling it - recycling 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

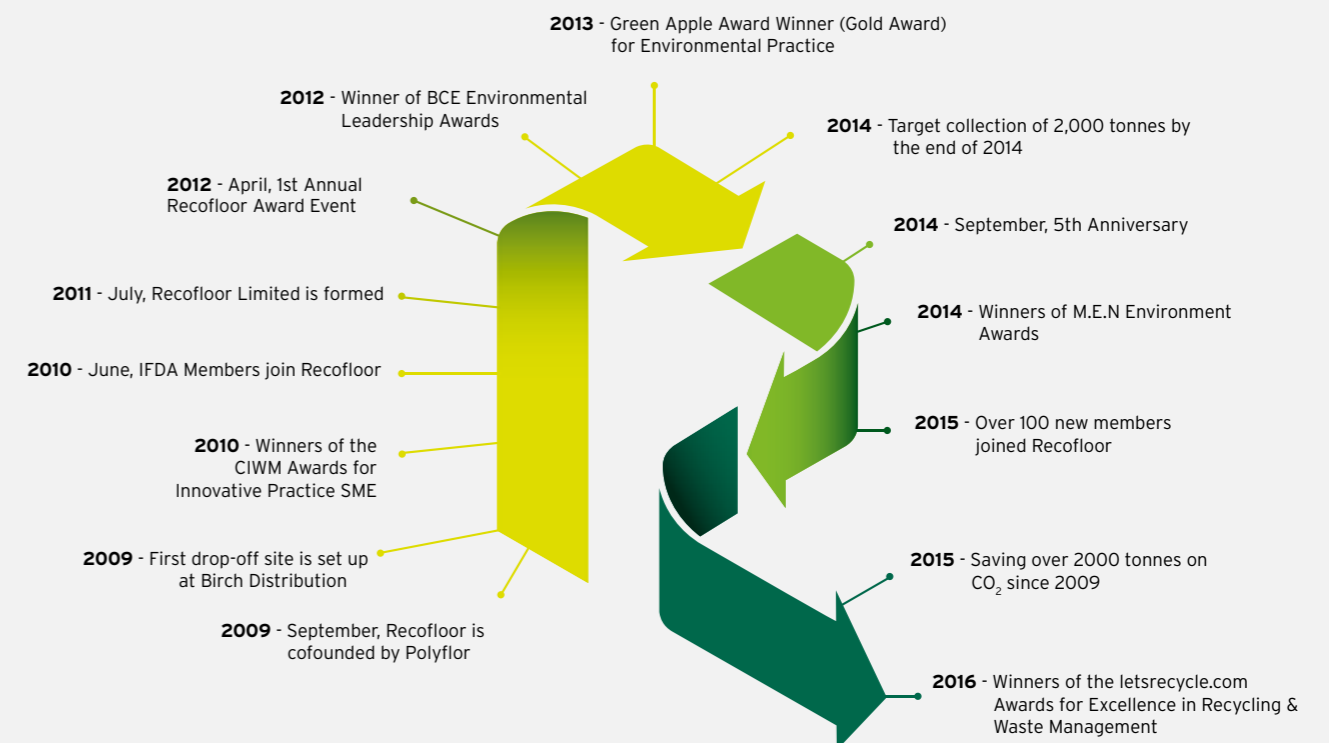
Since 2009 Recofloor has achieved a great deal and is now the UK's industry leading facilitator for efficiently reclaiming vinyl flooring. 2010 was a real turning point for the scheme, which saw Recofloor winning the CIWM (Chartered Institute of Wastes Management) Award for Environmental Excellence in 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 3,208 tonnes being collected since the scheme started in 2009 (figure correct as at 1st January 2017). This volume equals nearly 1,069,333m<sup>2</sup> or 26,733 x 20m rolls - enough vinyl flooring waste to cover nearly 150 football pitches - and this is a saving of over 2,566 tonnes of CO<sub>2</sub>.

Many thanks go to our customers who have embraced and supported this unique scheme. In particular, 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. The drop-off sites have also facilitated Recofloor's collection and recycling process. Furthermore, CO<sub>2</sub> emissions have been reduced by minimising needless drop-off and pick-up journeys.

## Recofloor Timeline





# Recofloor in 2016

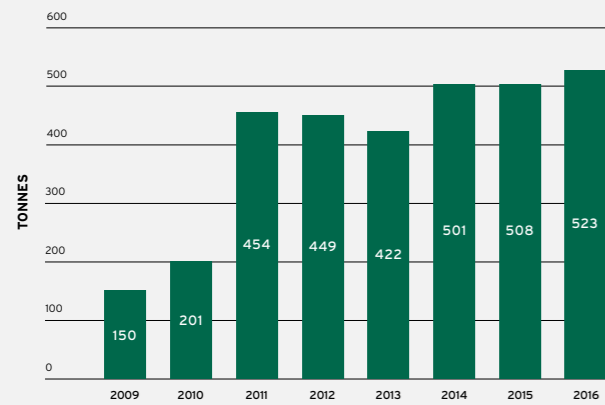
## 2016 Key Targets

- To collect at least 520 tonnes of waste vinyl flooring.
- To recruit at least 2 new construction projects.
- To increase collections from distributors (drop-off sites) by a further 10%.
- To develop a business plan for the Recofloor hub.
- To win at least 1 environmental award.

2016 was another successful, record-breaking year for Recofloor: All the targets set were met or exceeded, apart from the increase in collections from distributors, which increased by 3% rather than the targeted 10%.

**Figure 1** shows volumes collected by Recofloor since 2009. In the last three years, the scheme has steadily increased volumes. In 2016 Recofloor collected 523 tonnes - a pleasing increase of 15 tonnes or 3% compared to 2015

**Fig 1: Tonnes Collected 2009-2016**



**Figure 2** shows the volumes of material collected by type. Offcuts from the installation process represents 89% of the material collected in 2016, the remaining 11% was uplifted flooring. 54% of offcuts collected in 2016 were safety flooring offcuts and 46% were smooth flooring offcuts. The collection of smooth offcuts increased by 13% and smooth uplifted flooring increased by 41% compared to 2015.

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

flooring distributors are continuously ranking higher than any other sector. In 2016 volumes collected from flooring distributors increased by 3% compared to 2015. Flooring distributors are important for the development of the scheme as they bulk vinyl flooring from local contractors and fitters using Recofloor bins, thereby helping us to reduce the carbon footprint of the operation. We will ensure there is a consistent supply of bins available for distributors and continue to focus our efforts on this sector to increase the volumes during 2017.

**Fig 2: Material Collected by Type 2014-2016**



**Fig 3: Volume by Type of Site 2014-2016**



## 2016 Summary of Achievements

- Collected 523 tonnes of post-consumer vinyl flooring. 89% of material collected was post-installation offcuts and the remaining 11% was uplifted flooring.
- Recruited 69 new collectors of which 24 were new construction projects, increasing the volumes by more than 30% from this sector.
- Held a successful football-themed Recofloor Awards event at Old Trafford Stadium in March with 68 attendees.
- Held 18 bacon butty events at distributors, attended 3 trade member events and 2 toolbox talks and carried out 4 contractor visits across the UK and Ireland.
- Successfully delivered the Red-Letter Day Summer Promotion
- Won the Let's recycle Award for Excellence in Recycling and Waste Management.

Recofloor's success was sustained through engaging with non-members and maintaining good communication and prompt service to members.

In promoting the scheme, Recofloor's marketing campaigns were well received and included events and tradeshow, the Love2shop promotion and continuous communication via trade publications, social media, newsletters and e-campaigns. All of which resulted in increased brand awareness and collection volumes.

## 2017 Key Targets

- To collect at least 530 tonnes of waste vinyl flooring.
- To recruit at least 5 new construction projects.
- To increase collections from distributors (drop-off sites) by a further 5%.

- To ensure that specification guidelines are understood and adhered to by Recofloor collectors.
- To maintain a healthy stock of bins to fulfil the requests.

## 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 75% 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 flooring waste flooring recycled.
- Recofloor can be specified as an outlet for vinyl waste in tenders.
- Could help achieve extra points on BREEAM® and LEED® assessments.

"We have refurbishment contracts with our local council and a partnership with a commercial modular building company so offering a vinyl flooring recycling service ticks all the right boxes for these clients. Recofloor helps us to differentiate our company in a really positive way."

**Steve Dixon, Managing Director,  
S & D Flooring Specialists Ltd, Hull**

"Participating in Recofloor has reduced our waste disposal costs as well as the amount of material we send to landfill. The collection services are efficient and it's good to be doing our bit for the environment by sending back recyclable material for recycling. Recofloor has helped us to win new clients and importantly reduce costs: the scheme is now an integral part of our waste management. All our vinyl waste is brought back to our premises so it can be segregated correctly and recycled. We actively promote Recofloor throughout our business, whether it's to our clients, managers or apprentices."

**Anthony Francis, Managing Director,  
Mayfield Floors, Stockport**

# Recofloor Awards

For the 5<sup>th</sup> 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. The 2016 football-themed awards, hosted by Matt Le Tissier, were held at Manchester United's Old Trafford Stadium in March and were a great success with around 70 delegates in attendance.

### Contractor of the Year

Winner: Carpets 'N' Carpets Ltd, Treorchy  
Highly commended: Breydon Flooring Ltd, Great Yarmouth

### Distributor of the Year

Winner: 3D Flooring Supplies; MCD Wales; Flooring Accessories  
Highly commended: Ashmount Flooring Supplies, London

### Drop-off Site User

Winner: Mezmirizin Flooring Ltd, Cardiff  
Highly commended: Westlinks Services Ltd, Hull

### Best Newcomer

Winner: S & D Flooring Specialists Ltd, Hull  
Highly commended: MCD Kidderminster

### Recofloor Champion

Winner: Mark Purnell, Fantasy Flooring Ltd, Bristol  
Highly commended: Jeffrey Abbot, Top Floors (East Anglia) Ltd, Ipswich

### Greatest Improver

1st: STS Flooring Distributors Ltd, Watford  
2nd: Premier Carpets and Flooring, Cornwall  
3rd: Rudge Brothers and James Ltd, Bristol

### Long-standing Service

Winner: Branagan Flooring Services Ltd, Manchester

### Outstanding Achievement

Winner: Birch Distribution, Hull



*"Being fully committed to the Recofloor cause, I was delighted to be named Recofloor Champion 2016. It's made a massive difference. Winning an award encourages you to do even more and we have now extended the recycling concept throughout the business. For example, we now recycle all our waste streams, including cardboard. Recofloor is an integral part of what we do and everyone who works for us shares the vinyl flooring recycling ethos."*

**Mark Purnell, Director,  
Fantasy Flooring Ltd., Bristol**





## 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<sup>®</sup>, LEED<sup>®</sup> and Green Star<sup>®</sup>.

“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, ALEMA FIQ,  
Director, Centre for Sustainable Products, BRE**



*Polyflor has shown great leadership by having some of its products assessed using the BRE Environmental Profiles methodology.*

**Dr Shamir Ghumra, ALEMA FIQ,  
Director, Centre for Sustainable Products, BRE**



# About EPD

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 system that is open to all of Europe without creating barriers to trade.
- Generic and product specific EPDs are available - ERFMI generic profiling is available across all resilient flooring categories.
- 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:

- 7** Environmental Impact Indicators
- 10** Resource Indicators
- 3** Waste Indicators
- 4** 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

# Polyflor EPDs

Products can be individually assessed or ERFMI generic profiling is available. In 2012 Polyflor was part of the ERFMI EN 15804 generic data set for the creation of industry EPDs for the following categories:

- 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)

In addition to the generic EPDs, Polyflor also 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.

## 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.

SAFETY	EN 15804 EPD Specific	EN 15804 EPD Generic
Polysafe Astral PUR		EPD-ERF-2013611-E
Polysafe Mosaic PUR		EPD-ERF-2013611-E
Polysafe Corona 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		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-201611-E
<b>HOMOGENEOUS</b>		
Pearlazzo PUR		EPD-ERF-2013111-E
2000 PUR		EPD-ERF-2013111-E
Classic Mystique PUR		EPD-ERF-2013111-E
Mystique PUR		EPD-ERF-2013111-E
Prestige PUR		EPD-ERF-2013111-E
Standard XL		EPD-ERF-2013111-E
XL PU		EPD-ERF-2013111-E
Polyflex Plus PU		EPD-ERF-2013111-E
<b>HETEROGENEOUS</b>		
Forest fx PUR		EPD-ERF-2013211-E
Expona Flow		EPD-ERF-2013211-E
Bloc PUR		EPD-ERF-2013211-E
<b>HETEROGENEOUS ACOUSTIC</b>		
Silentflor		EPD-ERF-2013311-E
Acoustix Forest fx PUR		EPD-ERF-2013311-E
<b>LVS</b>		
Secura		EPD-ERF-2013411-E
Designatex		EPD-ERF-2013411-E
<b>LVT</b>		
Expona SimpLay	EPD-JHA-20140178-ICA1-EN	
Expona Design PUR	EPD-JHP-2013111-E	
Expona Commercial PUR	EPD-JHP-2013211-E	
Bevel Line PUR		EPD-ERF-2013511-E
Camaro PUR		EPD-ERF-2013511-E
Camaro Loc PU		EPD-ERF-2013511-E
Colonia PUR		EPD-ERF-2013511-E
Affinity2 <sup>55</sup>		EPD-ERF-2013511-E
<b>RUBBER</b>		
Diamant		EPD-ERF-2013711-E

To view EPDs, please go to [www.polyflor.com/sustainability](http://www.polyflor.com/sustainability) or [www.bau-umwelt.de](http://www.bau-umwelt.de).

## 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 (NO<sub>x</sub>, 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 (SO<sub>2</sub>) 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 SO<sub>2</sub> and NO<sub>x</sub>. This includes acidification due to fertiliser.

Copy taken from [www.bre.co.uk](http://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 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. This is why Polyflor has had the majority of its product ranges individually assessed and rated 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.

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 32 A+ ratings.

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.

Overall, Polyflor's certified ratings are impressive, particularly in the key areas of health and education, where BREEAM ratings are linked to government funding. For verification and more information on our certification and environmental profiles, visit [www.greenbooklive.com](http://www.greenbooklive.com) and click on the 'search GBL' link. Enter 'Polyflor' into the Company Name search box and/or enter the BRE certificate number 472; 415 or 429 (do not include the ENP prefix) into the 'Cert No' search box.

In 2016 Expona Control PUR was individually assessed and added to our latest certification. Some of our existing product ranges, including Polysafe Wood fx PUR; Polysafe Wood fx Acoustix PUR; Expona Bevel Line PUR and Camaro PUR improved on their previous assessment A ratings, achieving A+ ratings for the Retail (Durability) / Industrial Shed sector. Expona Commercial PUR also improved, achieving A for Domestic, where it had previously scored B. Overall the ratings are extremely pleasing.

SAFETY	Cert.	Health	Education	Retail (fashion)	Retail (Durability)	Office	Domestic
Polysafe Astral PUR	ENP472	A+	A+	A+	A+	A	A
Polysafe Mosaic PUR	ENP472	A+	A+	A+	A+	A	A
Polysafe Corona 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 Modena PUR	ENP415	A+	A+	A+	A+	A	A
Polysafe Arena PUR	ENP415	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
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
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
Bloc PUR	ENP415	A+	A+	A+	A+	A	A
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
Acoustix Forest fx PUR	ENP415	A+	A+	A+	A+	A	A
LVT	Cert.	Health	Education	Retail (fashion)	Retail (Durability)	Office	Domestic
Expona Design PUR	ENP429	A+	A+	A+	A	B	B
Expona Commercial PUR	ENP429	A+	A+	A+	A+	A	A
Expona 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.

## 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 (smooth) EN 1817	Rubber (profiled) EN 12199
Health	A+	A+	A+	-	A+	A+	A+	A+
Element	821570038	821570039	821570053	-	821570054	821570055	821570056	821570057
Education	A+	A+	A+	-	A+	A+	A+	A+
Element	821570065	821570066	821570010	-	821570013	921570010	821570014	821570015
Commercial	A	A	A	-	A	A	A	A
Element	821570038	821570039	821570041	-	821570042	821570043	821570044	821570045
Retail	A+/A+	A+/A+	A+/A	-	A+/A	A+/A	A+/A+	A+/A+
Element	821570038	821570039	821570053	-	821570054	821570055	821570056	821570057
Domestic	A	A	A	A+	A	B	A	A
Element	821570065	821570066	821570010	821570002	821570013	921570010	821570014	821570015

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

Acoustic	Homogeneous	LVT	LVS	Rubber (smooth)	Rubber (profiled)
Silentflor	Polyflor SD Finesse SD OHMega EC Polyflor EC Polyflor ROF Polyflor Plus PU	Expona SimpLay Camaro Loc PU Affinity2 <sup>55</sup>	Designatex	Diamant	Noppe Stud Tile

# Maximising BREEAM Credits

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:

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

- 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).

## 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 points: BES 6001 'very good'** - Polyflor can contribute 3 points for the use of ranges which are certified to BES 6001, achieving 'very good'.

**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 'Very Good' and ISO 14001 certification, contribute 4 of a maximum of 5 points (80% 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

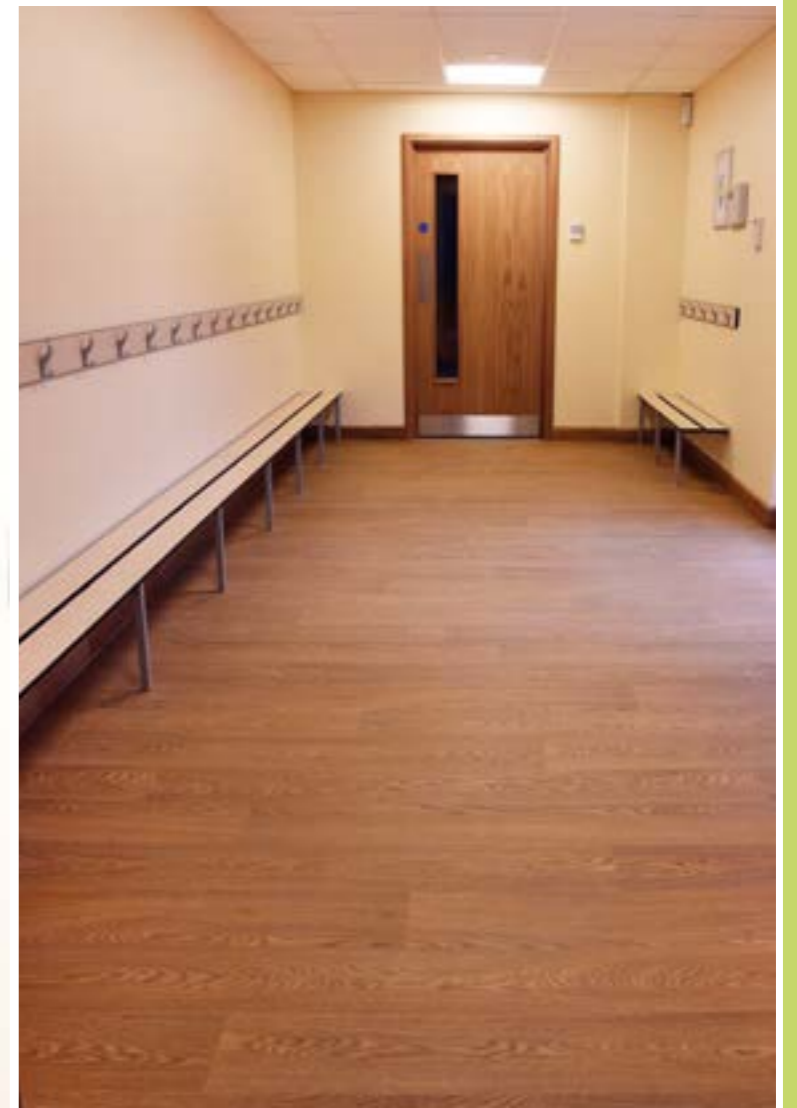
**Aim:**

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 floorcoverings 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

In 2016, Polyflor supplied flooring to many BREEAM projects, some of which are still ongoing. One of our favourite completed projects is Ysgol Dafydd Llwyd, a Welsh language primary school in Newtown, Wales.

Ysgol Dafydd Llwyd, an £8 million new school building project, has been designed and built with sustainability in mind and can accommodate up to 300 pupils. Polysafe Vogue Ultra PUR was installed in the school's classrooms and toilet areas and Polysafe Wood fx PUR was fitted in the school hall and conference room.



Ysgol Dafydd Llwyd, Newton, achieved BREEAM 'Excellent Rating'





## Polyflor In Situ

Another great BREEAM project was the City of London Academy secondary school and sixth form in Southwark, London. 2000m<sup>2</sup> of Classic Mystique PUR was installed throughout the classrooms due to its design, low maintenance benefits and its compliance on BREEAM assessments.



City of London Academy, achieved BREEAM 'Very Good Rating'

# 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, CO<sub>2</sub> 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.

Along with its 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; *A handful of Polyflor ranges can be reused, including loose-lay product, SimpLay;*
- 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 with the exception of Expona Design PUR, 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 can 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 details on SKA Ratings, visit [www.rics.org](http://www.rics.org)



# LEED®

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 in order 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.

The number of points achieved establishes the level of LEED certification for that project:



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

Polyflor floorcoverings have the potential to contribute to LEED® credits, a detailed explanation of how our products fulfil the requirements are outlined:

### LEED v4

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 centres; hotels & motels; existing schools; existing retail and mid-rise residential. Polyflor floorcoverings have the potential to contribute to LEED credits and are frequently used on LEED assessed projects, some of which included Platinum certified, Google, London; Gold certified, Amex, London and Gold certified, Shell House, Malaysia. .

### Materials & Resources

MR Credit: Building Product Disclosure and Optimization- 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. 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.

**1 point available.**

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: Construction and Demolition Waste Management

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**.

### 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 alternative test methods, including AgBB and Indoor Air Comfort Gold. Particularly relevant to LEED assessments, most Polyflor floorcoverings have achieved FloorScore® certification (certificates are available online at [www.polyflor.com](http://www.polyflor.com) and [www.scs-certified.com](http://www.scs-certified.com)). Along with other materials used on the project, Polyflor products can contribute towards **1 point - possibly up to 3 points**.

# Global GreenTag<sup>Cert</sup>™

The Ecospecifier Global GreenTagCert™ scheme operated by Global GreenTag P/L is a third party ecolabel program that rates sustainable products for the built environment.

Polyflor's 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.

Assessment of products is based on a life cycle approach and measuring the impact of products, including in the following critical areas:

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

Due to the strong performance in minimising the environmental impact in these categories, Polyflor products are listed on the Ecospecifier database ([www.ecospecifier.com.au](http://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 achieve LCARate™ Gold PLUS and Silver 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.

To view certificates visit [www.globalgreentag.com/certified-products-australianz](http://www.globalgreentag.com/certified-products-australianz)

HOMOGENEOUS	LCA Rate™	Green Rate™	EcoPOINT
Pearlazzo PUR	Gold PLUS	Level A	0.50
Prestige PUR	Gold PLUS	Level A	0.48
Classic Mystique PUR	Gold PLUS	Level A	0.50
2000 PUR	Gold PLUS	Level A	0.50
XL PUR	Gold PLUS	Level A	0.45
Standard XL	Silver PLUS	Level A	0.53
Polyclad PU Plus	Silver PLUS	Level A	0.53
Polyclad Pro	Silver	Level C	0.49
SAFETY	LCA Rate™	Green Rate™	EcoPOINT
Polysafe Standard PUR	Gold PLUS	Level A	0.47
Polysafe Astral PUR	Gold PLUS	Level A	0.48
Polysafe Vogue Ultra PUR	Gold PLUS	Level A	0.46
Polysafe Wood fx Acoustix PUR	Gold PLUS	Level A	0.40
Polysafe Verona PUR	Silver PLUS	Level A	0.53
Polysafe Wood fx PUR	Silver PLUS	Level A	0.52
Polysafe Apex	Silver PLUS	Level A	0.57
HETEROGENEOUS	LCA Rate™	Green Rate™	EcoPOINT
Acoustix Forest fx PUR	Gold PLUS	Level A	0.40
Forest fx PUR	Silver PLUS	Level A	0.52
LVT	LCA Rate™	Green Rate™	EcoPOINT
Expona Design PUR	Silver PLUS	Level A	0.60
Expona Domestic PUR	Silver PLUS	Level A	0.56
Expona Commercial PUR	Silver PLUS	Level A	0.58
Expona Superplank PUR	Silver PLUS	Level A	0.58
Expona Linné	Silver PLUS	Level A	0.60
Camaro PUR	Silver PLUS	Level A	0.54

Polyflor has achieved maximum rating points in the Green Building Council Australia (GBCA) and New Zealand Green Building Council (NZGBC) Green Star rating tools. Green Star rates the environmental and sustainable performance of a building as with BREEAM and LEED. Therefore, using Polyflor products certified by Ecospecifier's GreenTag scheme can help the specifier achieve maximum points

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



# 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 - 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<sup>Cert</sup>™ 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<sup>Cert</sup>™ 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,  
Global GreenTag International Pty Ltd**

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



# Corporate Social Responsibility

Corporate Social Responsibility (CSR) is not a new concept and is a term which is being increasingly used with growing importance. It is best defined 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.

World Business Council for Sustainable Development

“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 everyday 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 Petherbridge  
Sustainability Market Manager, Polyflor Ltd.



*Companies should demonstrate their sustainability credentials; encompass social and economic dimensions along with supply chain management and product stewardship.*

Sonia Petherbridge  
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.

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 2016, 95% of our suppliers were using Euro V or Euro VI energy efficient vehicles and 95% of our suppliers were providing adequate driver training to obtain maximum fuel efficiency. Our target scores of 90% for vehicle and driver efficiencies were surpassed.

Another of our achieved objectives is purchasing in bulk to minimise the transport impacts of our products, ensuring 95% of bulk deliveries are above the minimum load size.

We also work with suppliers with the closest possible proximity to the Polyflor production sites.

- 55% of all raw materials supplied within 50 mile radius (by Kg)
- 59% of all raw materials supplied within 100 mile radius (by Kg)
- 74% of all raw materials supplied within 300 mile radius (by Kg)
- 100% of all raw materials supplied within 500 mile radius (by Kg)

This improved from 2014, where 59% of all raw materials were supplied within a 100 mile radius; 82% were within a 500 mile radius and 100% were within a 1000 mile radius (by Kg).

In 2016, 100% of Polyflor's raw material suppliers had achieved ISO 9001 and 91% had achieved ISO 14001 approval (10% and 1% increases on 2015 respectively). In addition to this - and following our lead - 83% of our suppliers had OHSAS 18001 approval in 2016 (an increase of 108% compared to 2015). Polyflor will continue to encourage suppliers in obtaining OHSAS 18001 and ISO 14001 approval.

## Supply Chain Summary 2016

### Polyflor

- Responsible sourcing policy.
- ISO 9001, OHSAS 18001 & SA 8000 certified.
- ISO 14001 & BES 6001 certified.
- 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 (% scores achieved, against targets of 90% for all)

- 100% ISO 9001
- 91% ISO 14001
- 83% OHSAS 18001
- 95% Delivery HGVs have V or VI Euro engines
- 95% Driver training programme
- We use local printing companies with sound environmental credentials, using solvent free inks, plus FSC and Carbon Capture® accredited paper sources.



## Going One Step Further

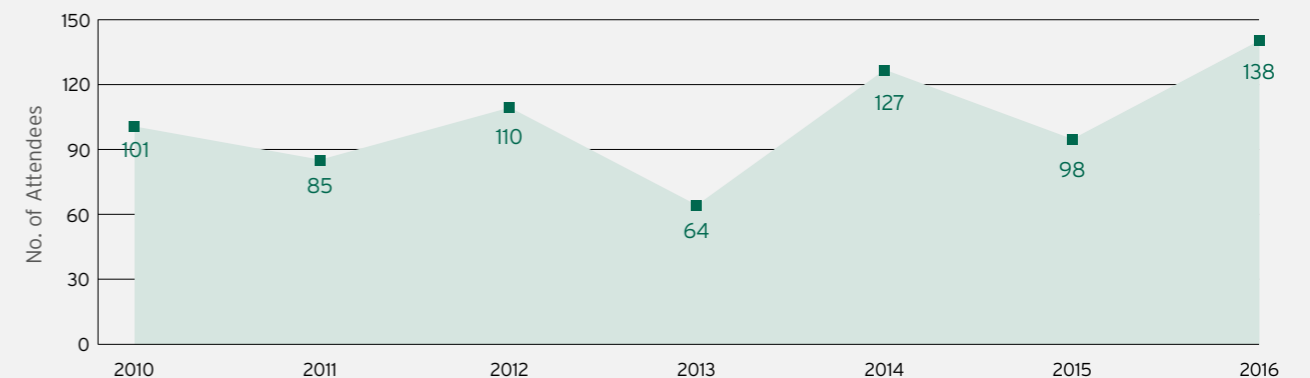
Ensuring that we go one step further as a responsible company, it is important that we go beyond producing quality product and encourage best practice throughout the flooring sector as a whole. Polyflor's established Flooring Training School significantly contributes to the value chain and continued to deliver high quality 2 and 3 day training courses throughout 2016 at its purpose built facility, offering a comprehensive insight into laying the perfect vinyl floor; preparing sub-floors; conditioning; using the correct adhesives to setting out and fitting. Over the last 6 years Polyflor has provided valuable floor fitting training to 723 industry associates.

Further to this, Polyflor also created a new Floor Cleaning and Maintenance Course. This free course is 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 floorcovering by using the correct cleaning methods and products. Correct maintenance

facilitates a longer life, reducing costs and frequency of purchasing new flooring.

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

## Polyflor's Flooring Training School



## 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.'\*

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?

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 continues to set the bar high, having been the only certified flooring manufacturer in 2016, achieving a Very Good rating for Version 3 of the standard. By achieving Very Good, Polyflor has satisfied the compulsory sections and conforms to higher levels of compliance, which has been a massive undertaking for the company - involving production, all internal departments and supply chain. Certification is available on [www.greenbooklive.com](http://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 want to procure flooring with sound environmental credentials and traceability, from socially aware and ethical suppliers. Without doubt the standard helps 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 even more 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 us more direction with regards to social responsibility management - with particular focus on internal procedures regarding employees, as well as how we engage with our 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 points for its BES 6001 Very Good 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.

\* Source: [www.greenbooklive.com](http://www.greenbooklive.com)



**BES 6001**  
Responsible Sourcing  
[www.greenbooklive.com](http://www.greenbooklive.com)

# 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 from local and surrounding areas and advertises through local media, job centres, 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.

## Recruitment & Retention

- Exceptionally low turnover with 25 and 40 year clubs
- Employees are recruited from local and surrounding areas, through advertising in local media, job centres and online.
- We employ graduate trainees and have internships.
- Polyflor employs 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.

- We enable and provide time for employees to undertake voluntary work.
- Promotion or opportunities in different departments are often distributed internally throughout the business, although obtaining the right skill set is important so positions also open up 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](http://www.polyflor.com), regular newsletters and this annual report which is circulated throughout Polyflor.
- Members of the Recofloor team frequently present to the sales, marketing and distribution departments, so they have a better understanding of achievements, goals and their part in its important process.
- The Polyflor floor fitting school is opened up to employees, which improves their understanding of Polyflor flooring and provides transferable skills for their own homes.

## Equality

- Equal Opportunities & Diversity Policy.
- Anti bullying policy and Anti-discrimination policy.
- Anti-ageist, 40% of employees aged between 46 & 55, with 22% (the next biggest age group) aged 56+.
- Ratio of men to women is 85% to 15%.
- 12% of female staff and 13% 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.
- 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 so as to be actioned and avoided.
- 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, enables group activities from hiking to theatre visits and encourages inter departmental bonding.
- 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.
- Bike sheds and shower facilities are obtainable at the Whitefield site.



## 2016 Update

	2012	2013	2014	2015	2016	+/-
<b>Employment &amp; Turnover</b>						
Total Employees	562	561	548	552	515	-7%
New Recruits	29	32	37	41	31	-24%
Labour Turnover	5%	7%	10%	9%	13%	52%
<b>Contracts</b>						
Full Time Employees	535	533	527	534	496	-7%
Part Time Employees	27	28	21	18	19	6%
Temporary Employees	17	17	16	8	9	13%
Apprenticeships	0	2	2	3	2	-33%
<b>Equality</b>						
Male Employees	485	482	467	472	432	-8%
Female Employees	77	79	81	80	83	4%
Male Managers & Supervisors	60	61	61	54	52	-4%
Female Managers & Supervisors	9	10	10	10	10	-
<b>Retention</b>						
Internal Promotions	4	5	6	4	6	50%
Employees Undergone Training Programmes	13	19	40	69	75	9%
Total Employees in 25 Year Club	47	58	76	75	81	8%
New Members in 25 Year Club	12	9	18	22	8	-64%
Total Employees in 40 Year Club	4	4	6	8	9	13%
New Members in 40 Year Club	0	2	3	2	4	100%
<b>Health &amp; Safety</b>						
Loss Time Accident (LTA)	13	7	10	8	11	38%
Actual Days Lost through LTA	213	166	287	143	348	143%

2016 presented some economic challenges, which Polyflor were and continue to be able to manage. However, this did mean adapting to the challenges and operating as flexibly as possible to react to the trading fluctuations. Reflecting this, Polyflor increased part time and temporary contracts to maximise flexibility and respond to market demands accordingly. Operations were marginally streamlined but the reduction in employees was in part due to retirements and members of staff moving on - a number of these vacancies should be filled in 2017.

Overall there are many positives to consider for 2016: Temporary employees increased by 13% compared to 2015. However, most of these were temporary to permanent contracts and the ratio of temporary staff to total employees has fallen considerably over the last 5 years. In 2016 Polyflor had 31 new recruits and a 50% increase on internal promotions was made. Staff training and support continued with a 9% increase on 2015 - or an impressive 477% improvement compared to 2012. Mutually beneficial to the employee and Polyflor, training can be internal and external, including IT and software development through to courses relevant to an individual's role or first aid, for instance.

As testament to our success in retaining valued employees, Polyflor had 81 members in its 25 Year Club - an 8% increase on 2015 and

up 72% on 2012. Amazingly, in addition to the 8 new members in the 25 Year Club, 4 new members joined the 40 Year Club, increasing its total to 9 members - a 13% increase on 2015. Cumulatively, members of the 25 and 40 year clubs made up 18% 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, Chairman of Polyflor's parent company, James Halstead.



Some of the newest members to join the 25 year club

## 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 in particular and its neighbouring residents. 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.

9 complaints were received in 2016 and were promptly handled. This was a 50% reduction on 2015 and was one of the best years for low complaint levels over the last 7 years. Of the 9

complaints logged, there were only 6 unique complaints. Given the proximity of the 100s of residents to this 24 hour (Monday to Friday) production site, we believe this is acceptable.

As part of ongoing CSR commitments, Polyflor continues to liaise with and support the local communities in which it operates. It is important to give something back to local communities in particular, as well as contributing to causes further afield.

Polyflor encourages its staff to engage with charitable organisations and events. In 2016, Polyflor supported its staff in holding another hugely successful coffee morning for MacMillan Cancer Support and a Halloween charity evening for Alzheimers Society. Support was also given to 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, with 19 hours being accrued in 2016.

In 2016 Polyflor supported numerous individuals, groups and organisations in the UK and globally. Here are some of our highlights for the year.

## Supporting our local communities

### Supporting Juniors through Sport

For a 4th consecutive season Polyflor sponsored Oldham Athletic's Junior Supporter's Club, Boundary Blues. Polyflor also continued working as a partner of the Oldham Athletic Community Trust 'Kicks' Project, which works within disadvantaged areas to reduce anti-social behaviour and to provide positive opportunities through sport, such as organising various tournaments and friendly games.

*"The support from Polyflor will again greatly assist us in our delivery and without their support over the last 12 months we may not have been able to continue to offer the opportunities that we have done".*

**Martin Vose, OACT Community Manager**





*“On behalf of all the cadets, leaders and other volunteers I wanted to write and officially thank Polyflor. We are so grateful for their generosity, everyone here is absolutely delighted.”*

Lynne Apedaile, President,  
Stockton-on-Tees Sea Cadets



## Supporting our local communities

### Stockton-on-Tees Sea Cadets

The Stockton-on-Tees branch of the Sea Cadets recently moved to bigger and better premises, but much work was needed with renovations. Polyflor donated Polysafe Standard and Hydro to this project, contributing to a fresh and safe environment for the youngsters.

### Hollins Community Centre

Polyflor donated XL PU and Polysafe Mosaic to this local community centre in Bury, in support of the families and children using the facility for its many activities including a nursery, dance school and club for performing arts and karate.

### Team Polyflor takes on the Great Manchester Run

Seven of Polyflor's staff put on their running shoes and successfully completed the 10k race in Manchester city centre, raising nearly £900 for Dr. Kershaw's Hospice in Oldham.

### CEO SleepOUT Manchester

Polyflor's Manufacturing Director, Steve Mulholland gave up his bed for the night to take part in Manchester's CEO SleepOUT event at Emirates Old Trafford. The 90 business leaders involved raised around £100,000 for 37 local charities that work with homeless and vulnerable people in the city.



## International Support

### Polyflor South Africa Making a Difference Trust

For the 8th year Polyflor South Africa assisted the television programme, Carte Blanche, with their 'Making a Difference' campaign by donating 780m<sup>2</sup> of Mystique PUR flooring. It was installed in the new Infant High Care Ward at the Sebokeng Hospital, South of Johannesburg.

### The Sun International CEO SleepOUT™

The challenge was for CEOs and their 3 guests to spend a night in a cold and uncomfortable 'sleep-out' on the Nelson Mandela Bridge in Johannesburg. Polyflor SA CEO, Tandy Coleman and her team contributed R160,000 (£9,560) thanks to numerous donations made by customers, suppliers and Polyflor. This helped towards raising R31-million (£1,853,009) - an amount which will make a big difference to many vulnerable, homeless South Africans.

### Polyflor Canada Goodlife Kids Foundation, Canada

For a third consecutive year, Polyflor Canada has contributed financially, donating \$500 (£400) to this charity which helps promote fitness to the Canadian youth.

### Polyflor Norway Estlandshjelpen, Norway

Polyflor Norway donated flooring to the Estlandshjelpen charity, which sends all manner of goods, including clothing and various equipment to families, schools, hospitals and shelters for children living on the streets throughout the Ukraine, Belarus, Estonia, Romania and Kazakhstan.

## National Support

### BBC's DIY SOS

Extremely sad circumstances led to the Fairlie family needing to make a life changing transformation to their home in Monmouth. Polyflor was pleased to help by donating Colonia LVT, Polysafe Wood fx and Hydro to 'The Big Build' project which took place during the Summer of 2016.

### Christmas Jumper Day

Polyflor staff got into the festive spirit and did their bit in a Christmas knit, raising money for Save the Children.





## Volunteering in the community

### Bury Hospice

All in aid of raising funds for Bury Hospice, staff from Polyflor helped out with the week-long Bury Arts Festival (including all the planning meetings prior to the event), the Colour Run and bag packing at local supermarkets.

### Careers Day at St. Teresa's, Bolton

Polyflor's Manufacturing Director offered some of his time to take part in a careers event at St Teresa's RC Primary School. There were 10 groups of pupils from year 5 and 6 for 5 minute career 'speed dating' sessions as part of Generation 2016. The purpose was to engage with and help the youngsters understand different careers and assist them in making choices for the future.



## 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.

The Company's 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 stock exchange with a nine figure turnover. We remain optimistic despite economic downturns with 'Brexit' - although the effects of this have lessened - the UK market has remained buoyant. However, this has had a positive effect for our export business with increased turnover within our international markets: Our subsidiaries in France; Germany; Canada; New Zealand and Australia have experienced growth in particular.

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 undermine pricing structures, ensuring economic sustainability for our customers globally.

Polyflor's ongoing commitment to Research and Development through the use of 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 fee is applied if waste material is collected from a specified site - this offers a saving of up to 75% when compared to landfill, which is financially beneficial for our customers.

Polyflor is a major employer in Greater Manchester and also in 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 515 employees as well as paying tax in the UK, thus fully supporting the UK economy.

*"I have every expectation that we will continue in the vein we have mined so successfully over the last generation. Whether it is La Casa Rosada (the executive mansion of the President of Argentina), the Christiaan Barnard Memorial Hospital in Cape Town or the Guizhou Anshun Hospital in China, Polyflor continues to cover the world."*

**Geoffrey Halstead, Chairman of James Halstead PLC**



# Polyflor Credentials

We continue to be involved with the development of products that will be environmentally sustainable, easier and healthier to use and multi-functional.

- ISO 9001 certification**  
 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.
- ISO 14001 certification**  
 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.
- BES 6001 certification**  
 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 certification**  
 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 approval**  
 BS OHSAS 18001, a framework for an occupational health and safety management system.
- BRE Global**  
 A+ rating certification on 32 individually assessed ranges within the homogeneous, safety, heterogeneous and LVT flooring categories (ENP472, ENP415 & ENP429). Also 13 ranges with generic BRE Global A+ rating.  
  
 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 (A+ being the best and E being the worst). Individual assessments relate to specific production data for the product, whereas generic ratings are derived from industry-wide production data and averaged.
- EN 15804 EPDs (written to standard ISO 14025) verified by IBU**  
 Created by the European working group CEN TC 350, EPDs (Environmental Product Declarations) provide transparent and reliable data for environmental criteria throughout a product's life cycle.  
  
**IBU** (Institut Bauen und Umwelt e.V.) is an independent, environmental organisation which works closely with construction and environmental authorities in Germany.
- Registered approved products with Ecospecifier - GreenTag GreenRate Level A across homogeneous, safety, heterogeneous and LVT ranges (LCARate certification Gold and Silver)**  
  
 Polyflor is registered to Ecospecifier, a guide to eco and health preferable products, materials and technologies for the built environment. GreenTag is Ecospecifier's Conformity Assessment Body (CAB) and Polyflor's products are certificated to meet GreenTag requirements.
- Registered approved products on the BASTA database, EPDs also listed on the DGNB database and can also contribute to LEED points**  
  
**BASTA** is a non-profit organisation owned by IVL Swedish Environmental Research Institute and The Swedish Construction Federation.  
  
**DGNB** (Deutsche Gesellschaft für Nachhaltiges Bauen e.V. / German Sustainable Building Council), promotes sustainable and economically efficient buildings for the future.  
  
**LEED®** (Leadership in Energy & Environmental Design) is a sustainable building certification programme which rewards best-in-class building strategies and practices.
- Passed the most stringent international VOC tests, including AqBB, Indoor Air Comfort Gold and FloorScore®**  
  
**AqBB** (Ausschuss zur gesundheitlichen Bewertung von Bauprodukten) is a committee for health-related evaluation of building products.  
  
**Indoor Air Comfort (IAC)** product certification by Eurofins, provides compliance with low VOC (Volatile Organic Compounds) emissions requirements of all European specifications. Indoor Air Comfort Gold certification shows a higher level of compliance.  
  
**FloorScore®** 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.

## Memberships

- A founder and funding member of Recofloor vinyl take-back scheme**  
 Recofloor is the UK's leading recycling scheme for uplifted smooth vinyl flooring and for smooth and safety offcuts.
  - Winner of **CIWM** (Chartered Institute of Wastes Management) Award for Environmental Excellence in the category of SME Innovative Practice, 2010
  - Winner of **BCE** (Business Commitment to the Environment) Premier Award 2011
  - Winner of **Gold International Green Apple Environment Awards** 2013, for Environmental Best Practice.
  - Winner of **MEN** (Manchester Evening News) Environmental Business of the Year Award 2014.
  - Winner of **Let'srecycle.com Awards** Excellence in Recycling & Waste Management.
- Fully support VinylPlus**  
  
**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.
- Active member of EPFLOOR & Recovinyl**  
  
**EPFLOOR** (European PVC Flooring Manufacturers Sector Group) has a mission to recycle post-consumer PVC flooring waste in Western Europe.  
  
**Recovinyl** 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.
- As a member of SFEC (Syndicat Français des Enducteurs Calandriers), James Halstead France (Polyflor's subsidiary) helps finance the French vinyl flooring recycling scheme, PVC Next.**  
  
**SFEC** works with the government and informs its members on regulations and standards and partakes in environmental policy, with a commitment to sustainable development.
- PVC Next** is France's national waste vinyl flooring recycling scheme, funded by James Halstead France and 4 other manufacturers within the SFEC association.
- Member of the UK Green Building Council, Green Building Council of Australia and New Zealand Green Building Council**  
  
 The Green Building Council is a national 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.
- Member of the Dementia Action Alliance** which is committed to transforming the lives of the 800,000 people living with dementia in the UK, and partner of the **International Dementia Design Network**, hosted by the University of Salford.
- 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.
- Active member of UKRFA and ERFMI**  
  
**UKRFA** (United Kingdom Resilient Flooring Association) - UK trade association for the resilient flooring sector.  
  
**ERFMI** (European Resilient Flooring Manufacturers' Institute) - ensures the maintenance of high ethical standard within the industry.
- REACH compliant**  
  
**REACH** is a European Union regulation concerning the Registration, Evaluation, Authorisation & Restriction of Chemicals.  
  
 Plasticisers used by Polyflor are not classified substances and do not need authorisation under **REACH**. A range of ortho-phthalates and non-phthalate alternatives were used across Polyflor's vinyl collection.  
  
 No harmful substances added, such as formaldehyde; lead; cadmium; mercury or hexavalent chromium.





## POLYFLOR™ INTERNATIONAL

### Australia

Polyflor Australia  
Tel: +613 9215 4400  
Tel: 1800 777 425  
E-mail: sales@polyflor.com.au

### Canada

Polyflor Canada Inc.  
Tel: +1905 364 3000  
E-mail: sales@polyflor.ca

### China

Polyflor Hong Kong  
Tel: +(852) 2865 0101  
E-mail: info@polyflor.com.hk

### France

James Halstead France SAS  
Tel: +33 (0) 8 20 20 32 11  
E-mail: info@jhfrance.fr

### Germany

objectflor Art und Design Belags GmbH  
Tel: +49 (0) 2236 966 330  
E-mail: info@objectflor.de

### India

Polyflor India Pvt Ltd  
Tel: +91 22 4023 2485  
E-mail: info@polyflor.co.in

### Ireland

Polyflor Ireland  
Tel: +353 (1) 864 9304  
E-mail: salesireland@polyflor.com

### New Zealand

Polyflor New Zealand  
Tel: +64 9 269 1111  
Tel: 0800 765 935  
E-mail: sales@polyflor.co.nz

### Norway

Polyflor Nordic  
Tel: +47 23 00 84 00  
E-mail: firmapost@polyflor.no

### Poland

Polflor Sp. Z o.o.  
Tel: +48 (0) 61 820 3155  
E-mail: polyflor@polflor.com.pl

### Russia

Polyflor Contract Ltd  
Tel: +7 (812) 332 42 02  
E-mail: info@polyflor.ru

### South Africa

Poly Sales Africa (Pty.) Ltd  
Tel: +27 11 609 3500  
E-mail: info@polyflor.co.za

### Sweden

FalckDesign AB  
Tel: +46 (0) 300 15820  
E-mail: info@falckdesign.com

[www.polyflor.com](http://www.polyflor.com)



## POLYFLOR™ HEAD OFFICE

POLYFLOR LTD. PO BOX 3 RADCLIFFE NEW ROAD WHITEFIELD MANCHESTER M45 7NR UK

**UK SALES DIRECT:** +44 (0)161 767 1122

**UK SAMPLE REQUESTS:** +44 (0)161 767 2551

**EXPORT SALES DIRECT:** +44 (0)161 767 1913

**UK FAX:** +44 (0)161 767 1128

**EXPORT FAX:** +44 (0)161 767 1166

**TECHNICAL SUPPORT:** +44 (0)161 767 1912

**RECEPTION:** +44 (0)161 767 1111

**E-MAIL:** INFO@POLYFLOR.COM

**WEBSITE:** WWW.POLYFLOR.COM