

Sustainability on the Government Estate

How InterfaceFLOR will support the Public Sector to deliver sustainable flooring solutions

mission



Mission Zero:
our promise to eliminate
any negative impact our company
may have on the environment
by the year 2020.

The UK public sector has been tasked to deliver sustainable development, not just through policies and services but also through the goods and services they buy. This creates significant challenges for those responsible for procurement.

InterfaceFLOR is an industry leader in the manufacturing of environmentally responsible modular flooring solutions. Their market leading design and innovation provides a diverse range of stylish and beautiful carpet tiles with an infinite variety of colour combinations, textures and patterns for every kind of commercial and residential flooring application.

But there is much more to InterfaceFLOR than just their products; the company has a corporate vision to become the first company to demonstrate to the entire industrial world what sustainability is in all its dimensions – people, process, product, place and profits. They call this vision **Mission Zero**.

In 1994 Ray Anderson, Interface Inc's Founder and Chairman, recognised that business could no longer continue to use up the earth's natural resources without regard for the future. That moment of recognition set Interface on a course that has characterised the company's development ever since and InterfaceFLOR is now recognised around the world as a pioneer in the field of sustainability.

Their objective is to:

- Put back more than they take out.
- Eliminate waste and harmful emissions, whilst maximising the use of renewable energy.
- Recycle waste materials and re-use products.
- Maintain a culture that fully integrates the principles of sustainability.

Over the past decade InterfaceFLOR has received many awards for its sustainability programmes including the Queens Award for Sustainable Development twice. They also rank world number one in the Survey of Sustainability Experts by GlobeScan, ahead of many major global corporations.

Just a few of the awards InterfaceFLOR has received over the last two years includes:

- BCE Award: Environmental Leadership Awards
- Queens Award for Sustainable Development
- UK Green Building Council: Sustainable Manufacturer of the Year
- Commended Award: Best Contribution to Sustainability category at the Home Office Supplier Value Awards.



How InterfaceFLOR will help the public sector to choose sustainable flooring solutions

Understanding the environmental impacts of carpet tiles

Assessing carpet based on environmental criteria can be a difficult task because many different factors need to be considered. In simple terms these are to:

- Establish where, how, when, what and why there is an environmental impact relating to carpet tiling; this then enables the decision makers to focus on the key criteria.
- Ensure decisions are always made using comparable data so that one product's impact can be seen clearly against another.

InterfaceFLOR has carefully considered all of these points to fully understand the environmental impact

of all of their products. The data is used to enhance the sustainability of their existing ranges and to design new sustainable products; with the ultimate aim to take the company towards achieving their Mission Zero commitment – to eliminate any negative impact InterfaceFLOR may have on the environment by 2020.

Customers of InterfaceFLOR can also benefit from this information to help them make informed choices about sustainable flooring solutions.

Life Cycle Analysis of a carpet tile

Life Cycle Analysis (LCA) studies all the relevant impacts throughout the life of a carpet tile: from extraction, to production of raw materials, through manufacturing, transport, use, maintenance and disposal.

More than two thirds of the overall environmental impact of a carpet tile is related to the raw materials needed to manufacture it.

From the LCA perspective, the raw materials and processes needed to produce nylon yarn represent the single most important environmental impact of carpet tiles, accounting for almost half of the full life-cycle impacts that are directly linked to it.

InterfaceFLOR's product strategy is therefore focused on the three key areas:

• Reducing the amount of yarn used

The company has reduced waste in manufacturing as well as making products with less yarn. In 2000 they launched Microtuft products which use around 40% less yarn. These products are now their fastest growing product category.

• Creating yarn to yarn closed loop recycled systems

Creating a closed loop recycled system has been another break-through. In 2008, InterfaceFLOR launched Convert™ in the US; Convert is a product that is the first carpet to contain post-consumer material both in the nylon yarn and in the backing; this means that about 30% less CO2 will be released during its life cycle (when compared to standard carpet with no recycled content).

• Seeking bio-based alternatives to nylon yarn

The company are also looking at developing low-impact bio-based yarns, which can be commercialised in the future.

Choosing the right carpet tile

Different factors must be taken into account to evaluate the environmental impacts throughout the life of a carpet, including its end-of-life disposal:

1. Pile height/weight

Maintaining performance, durability and using less yarn improves the environmental footprint.

2. Recycled yarn

Avoid high-impact virgin, oil-based materials which have high embodied energy content.

3. End of Life alternatives

Use closed-loop recycling or re-purposing instead of incineration or landfill. Recycle backing into same parts instead of down-cycling to something of less value.

4. Installation

Random carpet tile design or glue-less installation reduces off-cut trimmings and adhesives.

5. Transport

InterfaceFLOR research shows transport accounts for 8-10% of overall LCA impact. Regional manufacturing, higher vehicle efficiency, transporting by road to rail, ship or barges reduces transport impact.

6. Durability

Products used for 10 years have a half real impact compared to those used for 5 years. Real use should not be confused with ideal lifetime or product guarantees.

7. Transparent 3rd party verification

3rd party Environmental Product Declarations (EPDs), based on LCAs, are available as re-assurance about the actual impacts made.

The Government's vision is of a sustainably managed estate; one which is modern, resource efficient, with low energy usage buildings; which employs efficient use of space and ways of working; and where the principles of sustainable development are embedded into all working practices.

InterfaceFLOR's capabilities and experience, all learned over the last 16 years, as well as their ongoing research and development to achieve their Mission Zero, can help the public sector to accomplish the Government's vision. They have achieved many milestones and are well positioned to help Procurement Officers to make informed choices when it comes to meeting SOGE targets and the need for sustainable procurement, when considering flooring solutions.

SOGE targets

SOGE Target = Central Government estate to be carbon neutral by 2012.

- InterfaceFLOR is reducing the impact of the company and their products to completely eliminate the negative impact they may have on the environment by 2020.
- Their direct total energy use is down by 44% per unit of production and they aim to be using 100% renewable energy by 2020.
- InterfaceFLOR's innovative carpet tiles based on Microtufting technology reduces yarn by around 40%, with a similar reduction in overall footprint when compared to standard carpet tiles.



SOGE Target = Reduce carbon emissions from road vehicles used for Government administrative operations by 15% by 2010/11, relative to 2005/2006 levels.

- 99.7% of InterfaceFLOR's products sold in Europe are made in Europe.
- 40% of cost has been reduced by InterfaceFLOR's use of multi modal transport. Continually challenging the supply chain ensures maximum efficiency;
- groupage deliveries, barges and rail are used where practical.
- Cool to CO2mmute programme allows employees to offset their emissions from commuting to work and Trees for Travel is used to offset all business travel.



SOGE Target = Reduce water consumption by 25% on office and non-office estate by 2020, relative to 2004/05 levels. Reduce water consumption to an average of 3m3 per person/year for all new office builds or major office refurbishments.

- InterfaceFLOR's water intake per unit of production is down 72% since 1996. One example is simply installing a sensor on a spray mechanism saving an estimated 28m3 of water a year.




SOGE Target = Application of BREEAM "excellent" standard to all new builds and "very good" standard to all major refurbishments.


- All InterfaceFLOR carpet tile ranges are BRE rated.




SOGE Target = Key staff in departments to have sustainable procurement performance objectives and incentives linked to performance objectives for delivering efficiency savings.

- Creating a culture that integrates sustainability and improves the world requires action from InterfaceFLOR and their stakeholders. Sensitising stakeholders spreads sustainability and encourages other organisations to develop their own sustainable ideas.
 - Bonuses rewarded to the InterfaceFLOR operations teams are based on waste reduction and other sustainability initiatives.
 - InterfaceFLOR has a Sustainability Ambassador programme for employees to teach the fundamentals of sustainability with three levels of graduation.
 - Global QUEST (Quality Utilizing Employee Suggestions and Teamwork) encourages employees to help identify and reduce waste.
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SOGE Target = Reduce waste arisings by 5% by 2010 relative to 2004/05 baseline & increase recycling to 40% of waste arisings by 2010.

- InterfaceFLOR has achieved a 67% absolute reduction in the volume of waste they send to landfill and has avoided cumulative waste costs totalling \$405.
 - Products and processes are all designed to reduce and simplify the amount of resources used, so that material waste is re-manufactured providing technical nutrients for the next production.
 - The Re-Entry scheme recycles or re-purposes used carpet tiles.
 - 24% of raw materials used are already recycled or bio-based.
 - In 2009 InterfaceFLOR introduced two leading-edge technologies that will significantly reduce manufacturing waste at their facilities in Europe; a bespoke ultrasonic cutting machine based on NASA technology, which will double output and eliminate several hundred tonnes of waste per year and a 'Cool Green™' system that enables recycling of manufacturing and carpet waste back into its products for the first time.
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SOGE Target = Buy Sustainable "Defra/OGE – Quick Wins"; minimum product standards included in relevant Government contracts.

- InterfaceFLOR's Random range is installed in a non-directional manner, reducing installation waste to between 1% and 2%.
 - A Life Cycle Analysis is produced for all InterfaceFLOR products.
 - InterfaceFLOR was the first company to produce an Environmental Product Declaration (EPD) for a carpet tile.
 - Recycled content of yarns is used wherever possible and the company were the first carpet manufacturer to recycle nylon yarn.
 - Graphlex®, their standard backing, contains an average of 52% recycled content.
 - A "Less is More" concept is used for all product design with regular reviews to improve sustainability.
 - A take-back service is available for all samples.
 - Field designers and sustainability experts will help with advice and ideas.
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SOGE Target = Reduce CO2 emissions from offices by 12.5% by 2010/11.

- By 2020, InterfaceFLOR aims to release only benign (neutral) emissions and eliminate all hazardous chemicals from industrial processes and products. Only clean water, clean air and carpets will leave their factories. Smokestacks, effluent pipes and hazardous waste are being eliminated.
 - InterfaceFLOR is continually working to minimise chemical use. They have achieved significant progress since 1996. All carpet tiles comply with the Environmental Quality Credit 4.3 Low Emitting Materials – carpet, from the LEED green building standard.
 - The company achieved an absolute net change in Greenhouse Gas Emission (GHG) of 71% since 1996.
 - Cool Carpet® enables customers to offset emissions throughout the lifecycle of their carpet.
 - New adhesive-free TacTiles virtually eliminates all VOCs and harmful emissions originated from adhesives used during installation.
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InterfaceFLOR Sustainability Products and Services

Random design for non-directional installation



Carpet needs to be cut to fit the shape of the room which results in a certain amount of waste. Broadloom carpet creates up to 12% waste during installation compared to carpet tiles which creates only 3-4%.

The InterfaceFLOR random designs, for non-directional installation can reduce waste even further to between just 1 and 2%. More than 6 million m² of Random design carpet tiles have been sold in Europe since the launch of Entropy, their first Random design product in 2001.

Installation waste example

For a rectangular building

Carpet	Waste before walls installed	Waste after walls installed
Broadloom 400cm	8-12%	12-15%
Broadloom 200cm	7-9%	10-12%
Monolithic tiles	3%	3-4%
Ashlar/brick tiles	3.5%	4-5%
InterfaceFLOR Random tiles	1-2%	1-2%



Typical broadloom installation waste: 8-12%

For a round or triangular building

Carpet	Waste before walls installed	Waste after walls installed
Broadloom 400cm	20-25%	25-30%
Broadloom 200cm	17-23%	23-27%
Monolithic tiles	3-5%	4-5%
Ashlar/brick tiles	4-6%	5-6%
InterfaceFLOR Random tiles	1-2%	1-2%



Random designs have installation waste: 1.5%

Source: InterfaceFLOR sales team in the Netherlands.

Sustainable services



TacTiles™

TacTiles virtually eliminate VOCs contributing to the LEED credit 4.1 Indoor Environmental Quality. TacTiles have less waste during installation, are recyclable and have an environmental footprint that is over 90% lower than that of traditional glue.



Cool Carpet™

InterfaceFLOR calculate GHG emissions for the entire lifecycle of products and then purchase verified emission reduction credits, on behalf of the public sector, to offset those emissions.



ReEntry™

Within Europe old carpet tiles will be taken away, regardless of the manufacturer, if the floor is re-fitted with InterfaceFLOR product. To date, their ReEntry programmes have diverted more than £170 million of carpet from landfill worldwide.



Transparent information by product

A Life Cycle Analysis has been completed for each InterfaceFLOR product providing information such as the recycled content and estimated carbon footprint.

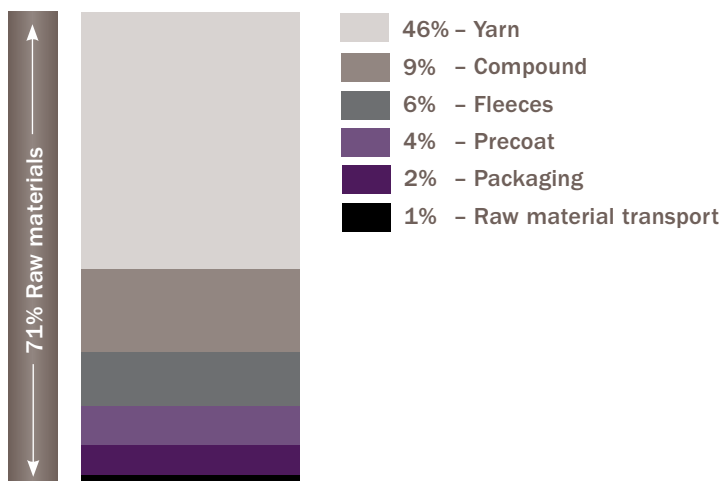
InterfaceFLOR carpet tile life cycle analysis

InterfaceFLOR can produce a life cycle analysis for each of their products. Typically they can be broken down as shown here for Heuga 580.



InterfaceFLOR raw material breakdown

The largest component, raw materials, can be broken down further into its constituent parts.



All Government departments are currently involved with a number of major initiatives, such as High Performing Property, Estate Rationalisation, Government Relocations and Property Benchmarking.

Within all of these programmes there is likely to be a requirement for a flooring solution; whether for newbuild or the refurbishment of existing buildings.

In line with these programmes Procurement teams are tasked with meeting demanding SOGE targets and also ensuring that the goods and services they choose are the most sustainable options available to them.

Procuring flooring solutions from InterfaceFLOR could not be easier, as the company hold a supplier framework agreement with the public sector buying portal Buying Solutions. This framework agreement promises that InterfaceFLOR flooring solutions are already proven to have high performance, value for money and maximum sustainability credentials. There is no further need for Procurement Departments to undertake costly and time consuming tendering processes.

Independent Accreditations

InterfaceFLOR is a founding member of the World Green Building Council and supports many NGOs globally. Within the UK they are active with a number of organisations including Forum for the Future, Climate Care, EAUC and many others.



For more detailed information about Sustainability visit our website www.interfaceflor.eu; call us on 01274 698503 or send an email with your enquiry to publicsectorsalesdesk@interfaceflor.eu

buying solutions

Paul Quinn, Category Manager at Buying Solutions said:

“We’re pleased to be working with InterfaceFLOR to understand and meet the needs of the public sector, especially in relation to the Sustainability on the Government Estate (SOGE) targets. The framework agreement with InterfaceFLOR delivers value for money and fitness for purpose whilst providing quick and easy access to most flooring requirements without the need for additional tendering.”

As an executive agency of the OGC, Buying Solutions’ is ideally placed to support the public sector to achieve its sustainable procurement goals.

Sustainability is integrated into Buying Solutions’ category management approach and the agency is active in many key product categories required by public sector departments, both at a local and central level, including flooring solutions. The Buying Solutions business model is accredited by the Chartered Institute of Purchasing and Supply (CIPS) for excellence in purchasing policies and procedures.

Buying Solutions can help with:

- Providing expertise and professional support at every stage of the procurement process to help deliver improved value for money.
- Understanding the importance of delivering sustainability improvements by providing advice and expert guidance for an ever-growing range of products and services.

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