



**Interface®**

# Recycled PVB

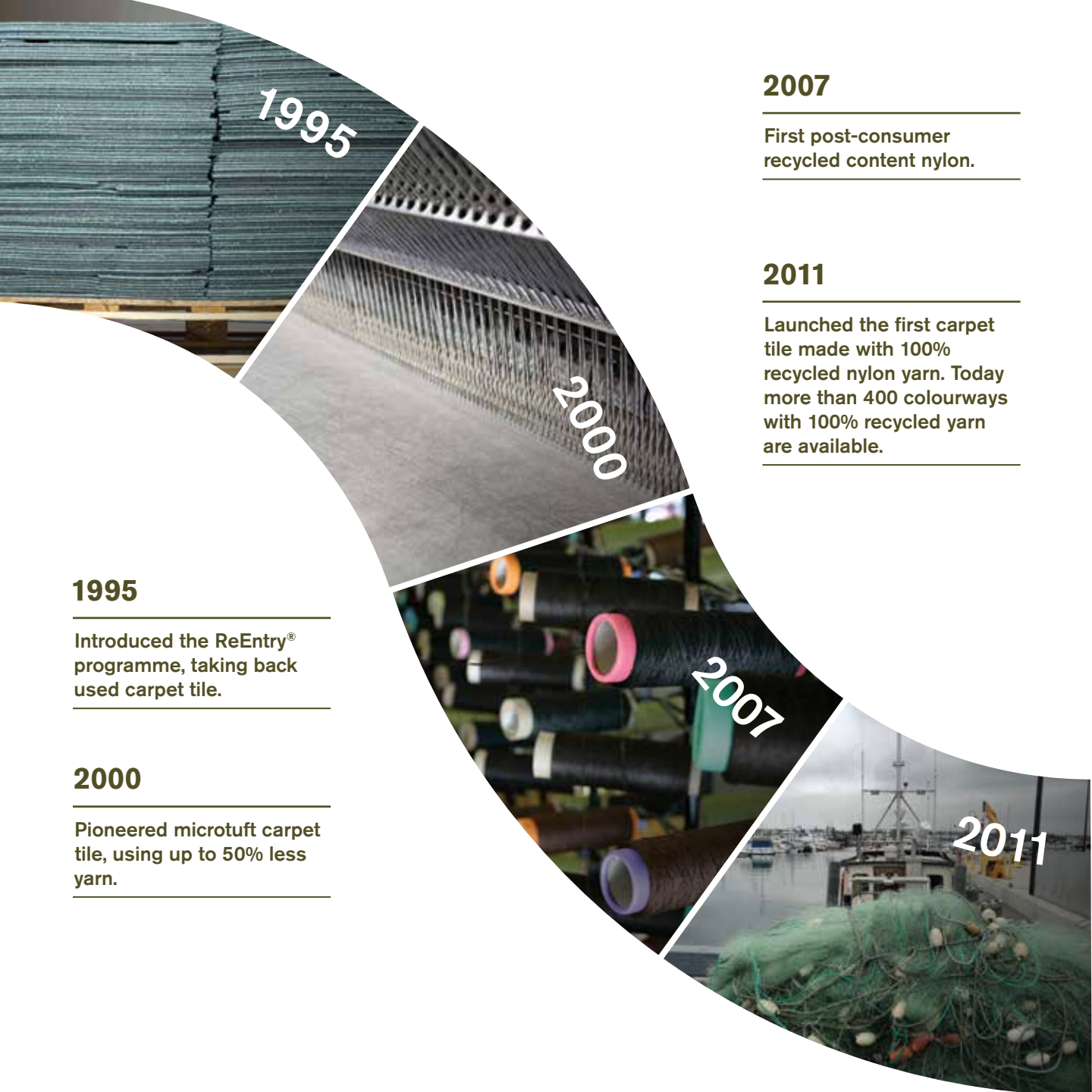
From windscreens to carpet

# A new purpose for an old material

There are over one billion cars in the world. Annually, on average 5-6% of cars have a replacement window. The EU is pushing for recycling of these windscreens, but the laminate material (PVB) that prevents the windows from shattering has not been given a second life, until recently.

Interface has partnered with the supply chain to process the laminate and use it in the production of carpet tiles. This means we are able to reduce the carbon footprint of our carpet tiles and extend the useful life of PVB at the same time.





**2007**

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First post-consumer recycled content nylon.

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**2011**

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Launched the first carpet tile made with 100% recycled nylon yarn. Today more than 400 colourways with 100% recycled yarn are available.

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**1995**

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Introduced the ReEntry® programme, taking back used carpet tile.

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**2000**

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Pioneered microtuft carpet tile, using up to 50% less yarn.

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Cutting the  
**umbilical cord**  
to oil

**2012**

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Launched the first carpet tile made with biobased nylon yarn.

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**2013**

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Started the Net-Works® programme, an inclusive new business model.

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**2015**

**2015**

**2015**

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Launched Microsfera® – lowest carbon footprint ever.

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**2015**

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Introduced recycled PVB, decreasing carbon footprint of the precoat by 80%.

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**2012**

**2013**

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Interface has a history of radical innovation. In 1994 we started Mission Zero®, our commitment to become, by 2020, the first company to be fully sustainable. This means that by 2020 all our raw materials must be 100% recycled or biobased.

We've taken many steps to increase the recycled content in our carpet tiles and at the same time significantly decrease the amount of raw materials needed.

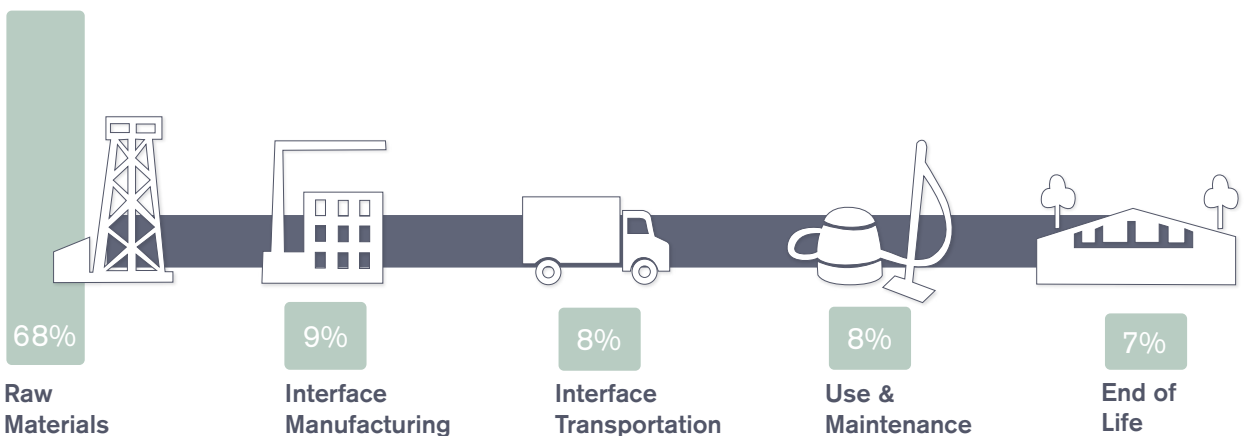
# Taking on the biggest impacts

Since 2000, we have used Life Cycle Assessment (LCA) to measure the environmental impact of our products. LCA is the scientifically recognised way to measure the actual impact of a product throughout its lifecycle.

An LCA for a typical carpet tile shows that the raw material stage is responsible for most of the impact. More specifically, the yarn and the latex precoat are the biggest contributors.

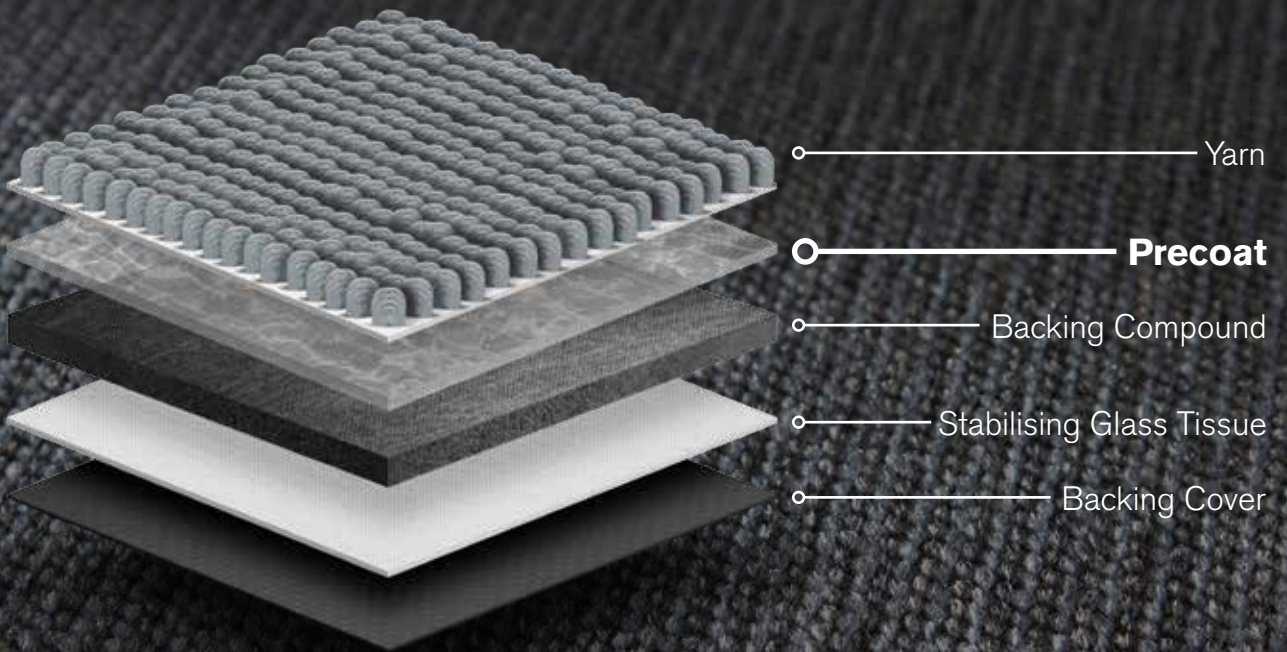
## About precoat

The precoat is a key component of the carpet tile, as it's what keeps the yarn stuck to the backing. Synthetic latex is the main component for precoat throughout the carpet industry.



The calculations are based on a 700g carpet tile made with PA6.6 and Interface's Graphlex® backing with the following assumptions: landfilling at end-of-life, no green energy use in the lifecycle, and a product lifetime (use) of 10 years.

## Typical carpet tile construction



# Decreasing material impact of **the precoat**

There are three obvious ways to decrease the environmental impact associated with a raw material:

- Use less material
- Use more recycled material
- Find an alternative material with lower impact

At Interface, we are aggressively pursuing all these options. In 2008, we focused our attention on the precoat, a key component of the carpet tile. Seven years later we have multiple results.

We have been able to remove the precoat entirely from our Microsfera product, but this solution is not viable for every carpet tile. Our answer for the others? Laminated glass from building glass and car windscreens.

Car windows have been laminated to prevent shattering since the 1930s, and every year one in twenty cars has a window replaced. This generates a stream of material ensuring a plentiful supply worldwide.

Most car windows are laminated using Poly Vinyl Butral (PVB), a material we can use as a replacement for latex in our precoat.



## **PVB facts**

- Used as a laminate in car windows and building glass
- Non-toxic
- Non-corrosive
- Good tensile strength
- Very adhesive
- Estimated 1 million metric tonnes recycled material available worldwide

**Using recycled PVB reduces the carbon footprint of the precoat by 80% compared to traditional latex**



# A collaborative **process**



1 | Windscreen replacement



2 | Glass is sent to a recycling plant



5 | The PVB is refined into a dispersion



6 | The dispersion is used in the precoat compound

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Radical innovation requires expertise and collaboration. Always looking for new ways to do business, we have learned that sometimes the most unlikely partners are just the right ones to complete the process.



3 | PVB fractions are separated



4 | The recycled PVB is cleaned



7 | The precoat is applied to the carpet



8 | Completed carpet tile ready for installation



PRODUCT THE SCANDINAVIAN COLLECTION  
COLOUR 303105 MALMO INSTALLED 1/4 TURN

# High-performing and **Scalable**


Just like other raw materials, the properties of recycled PVB vary. That's why every batch of material is tested before it is shipped to Interface. The strict tolerances mean that the performance of a carpet tile with a PVB precoat completely matches that of a carpet tile with a traditional latex precoat.

In 2015, the first product range to incorporate the PVB precoat was The Scandinavian Collection. This minimalistic microtuft offers a subtle linear design, creating a modern look that is suitable for a wide range of interiors.

Just a year later, the recycled PVB precoat is used in all our standard microtuft products and we'll expand to as many products as possible in the future.

# Mission **Zero**<sup>®</sup>





Mission Zero is our commitment to become, by 2020, the first company to be fully sustainable – which means having zero negative impact on the environment. Ultimately, we want to become restorative, giving back more than we take.

### **90% carbon reduction in Europe**

You can judge us by our actions. Since 1996, we have reduced our carbon footprint by 90% in Europe. Producing a carpet tile uses only half the energy it used to in 1996. Our manufacturing plant in Scherpenzeel, the Netherlands, uses 100% renewable energy, made from fish and chocolate waste. The manufacturing process uses virtually zero water, and we send zero manufacturing waste to landfill in Europe.

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BG	+359 2 808 303
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[www.interface.com](http://www.interface.com)



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