

## Summary of Environmental Product Declaration for Convert™ Design Platform



Convert: Modular carpet with post consumer recycled content Type 6 or 6,6 nylon face cloth combined with GlasBac®RE recycled backing. This product collection represents a significant advance in carpet manufacturing by incorporation of post-consumer carpet yarn into the wear layer.

### A STEP FORWARD

EPDs represent the future of eco-labeling and InterfaceFLOR is the first carpet manufacturer in North America to have a third party verified EPD. While InterfaceFLOR has long used life cycle assessment as an internal decision making tool, an EPD allows us to communicate the environmental impacts of our decisions with unbiased, third party validation. This is a huge step forward for the carpet industry and one more example of how we are leading the industry in advancing sustainability. It also builds on our commitment to transparency and shows our progress on our Mission Zero™ journey by allowing customers to see how our choice to increase the use of recycled content reduces environmental impacts.

### WHAT IS AN ENVIRONMENTAL PRODUCT DECLARATION?

An Environmental Product Declaration (EPD) is a statement of product ingredients and environmental impacts that happen during the life of a product. Wouldn't you like to compare products based on environmental impact reduction?

EPDs are based on life cycle assessment, which details the resource use and environmental impacts of products. It measures things like energy and material consumption, waste generation and emissions throughout the entire "cradle to grave" life cycle of the product.

An EPD is similar to the ingredient lists and nutrition labels on food. An EPD allows for the comparison of products' ingredients, energy and material resource consumption, and environmental impacts— similar to comparing calories and grams of protein in food products. Like Nutrition Facts, an EPD allows you to make informed choices.

InterfaceFLOR earned two EPDs for its Convert™ Design Platform products – one for Convert products made with post-consumer content type 6,6 nylon and our post-consumer content GlasBacRE backing, and one for Convert products made with post-consumer content type 6 nylon and our post-consumer content GlasBacRE backing. These EPDs are based on an average life cycle inventory and impact assessment of products from the InterfaceFLOR Convert platform. Our EPDs represent our product design at a specific point in time, like a snapshot. Our goal at InterfaceFLOR is to continue to increase post-consumer recycled content in our nylon and backing.

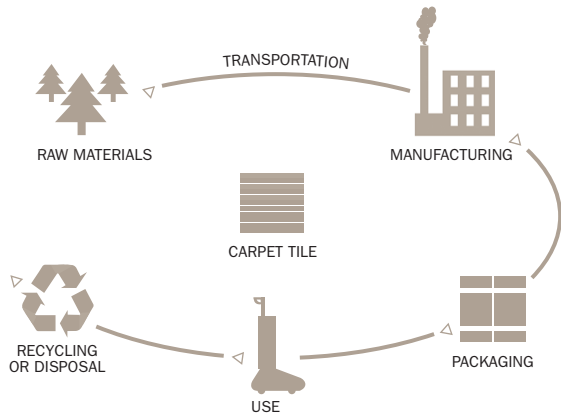
### HOW ARE EPDS CREATED?

EPDs follow a credible, verifiable process in their development. Companies must have a commitment to full disclosure of what is usually confidential information about how products are made. In addition to this ingredient information, companies must perform a comprehensive life cycle inventory and impact assessment pursuant to ISO 14040 standards. From this information, an Environmental Product Declaration is developed, pursuant to ISO 14025 and 21930 standards. The EPD and the LCA both require third party verification.

*Our EPDs mean we have prepared a standardized analysis of the full life cycle ("cradle to grave") environmental impacts of our Convert Design Platform, verified by an unbiased third-party. These environmental impacts include: global warming, acidification, eutrophication, ozone depletion, smog and abiotic depletion.*

**HOW ARE IMPACTS MEASURED?**

Life Cycle Assessment measures the energy and material flows and environmental impacts of the product from raw material extraction all the way through to end of life.



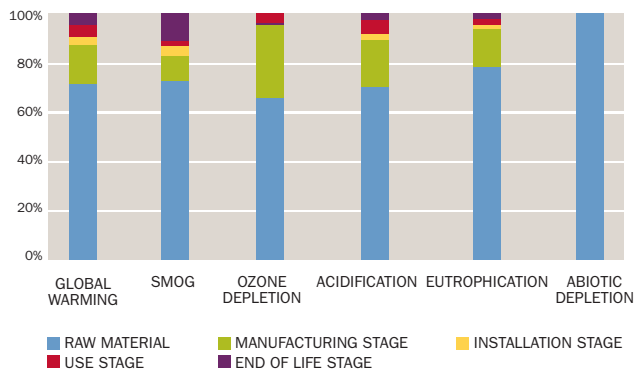
*Measuring the results*



**WHERE DO IMPACTS OCCUR?**

Across all impact categories, more than 60% of the impacts occur in the extraction of raw materials.

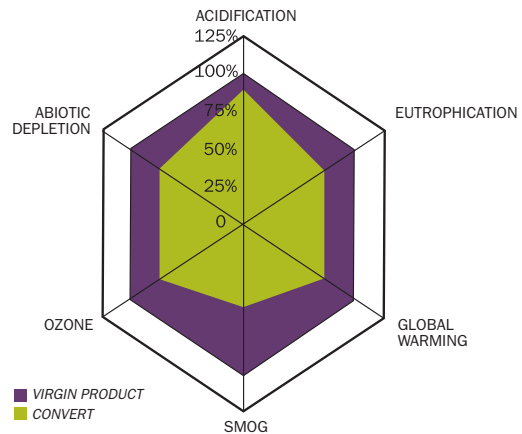
*\*The numbers below are based on the EPD for Convert products with Type 6,6 Nylon*



**VIRGIN RAW MATERIALS ARE THE LARGEST CONTRIBUTOR TO ENVIRONMENTAL IMPACTS**

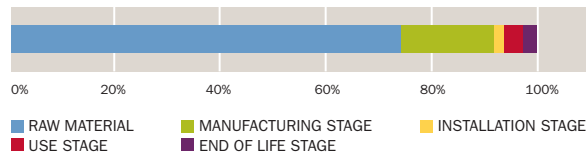
The majority of the environmental impacts occur during the extraction of raw materials and processing. Nylon is the largest contributor to environmental impacts among the raw materials. For example, virgin nylon contributes up to 58% of the full life cycle Global Warming Potential of the carpet (39% for Nylon 6,6 products, 58% for Nylon 6 products). This and other impacts are significantly reduced by the use of recycled nylon. The Convert Design Platform with post-consumer recycled content showed a Global Warming Potential reduction of up to 36% (29% for Nylon 6,6 and 36% for Nylon 6 products) versus the same product using 100% virgin raw materials.

*Post-consumer recycled content reduces environmental impacts*

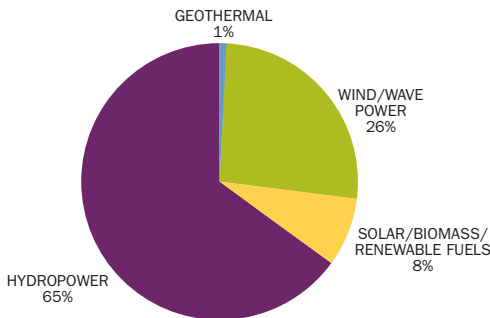


The use of recycled nylon and recycled backing has a significant impact on reducing the total environmental impact of carpet. As technology permits, InterfaceFLOR will continue to increase the level of recycled content in modular carpets with the goal of eventually eliminating the use of all virgin materials, provided we can do so in an environmentally responsible manner (i.e., with holistic improvements in all environmental impacts).

**HOW MUCH ENERGY IS USED THROUGHOUT THE LIFE CYCLE OF AN AVERAGE INTERFACEFLOR CONVERT PRODUCT?**  
*Total Primary Energy Life Cycle Stage (MJ/sq meter)*

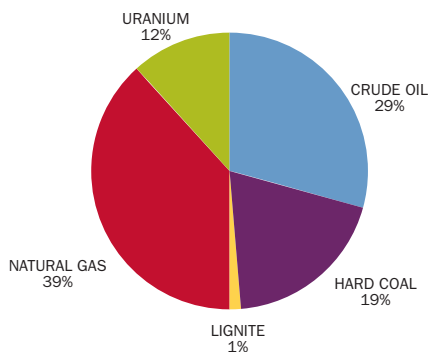


**WHERE DOES THE ENERGY COME FROM?**  
*Renewable Primary Energy by Source*



Note: 1.3-1.5% of total primary energy comes from renewable sources.

*Non Renewable Primary Energy by Source*



**HOW MUCH WATER IS CONSUMED?**  
*Total water (m3/sq meter)*

TOTAL LIFE CYCLE	RAW MATERIAL EXTRACTION	INTERFACEFLOR MANUFACTURING	INSTALLATION	USE	END OF LIFE
0.13-0.37	0.13-0.37	0.0003	0.0004	0.005	0.0004

**HOW MUCH NON-HAZARDOUS WASTE IS GENERATED?**  
*Total non-hazardous waste (kg/sq meter)*

TOTAL LIFE CYCLE	RAW MATERIAL EXTRACTION	INTERFACEFLOR MANUFACTURING	INSTALLATION	USE	END OF LIFE
5.91-6.10	5.91-6.10	0*	0.11	0.54	0.53

\*NOTE: 0 HAS BEEN ROUNDED OFF FROM 0.00019

**CONVERT DESIGN PLATFORM FEATURES**  
**POST-CONSUMER CONTENT FIBER AND BACKING**

The Convert Design Platform represents a significant step forward in carpet manufacturing by incorporating post-consumer content carpet fiber into InterfaceFLOR carpet tile. Post-consumer carpet is reclaimed through InterfaceFLOR's ReEntry® 2.0 program and the fibers are separated from backings. Fiber is then melted into nylon granulate, combined with pre-consumer and virgin granulate and then extruded into new fiber for carpet and use by other industries. Separated carpet tile backing is pelletized and becomes feedstock for GlasBacRE backing, the recycled vinyl backing for this group of products. Carpet is manufactured in LaGrange, Georgia. The recycling of post-consumer carpet fiber and backing into new carpet represented in this product platform is a major accomplishment on the path to sustainable carpet construction, and the EPD results verify this achievement. The styles in the Convert Platform contain a total of 64-73% recycled content including 32-35% post-consumer recycled content (as of September 2009).

WANT TO KNOW MORE ABOUT THE RAW MATERIALS, IMPACTS, AND PERFORMANCE OF THESE PRODUCTS? See the full verified and registered EPDs at: <http://www.thegreenstandard.org>

**INTERFACEFLOR CROSS REFERENCE MATERIALS**

- LCA brief
- EPD brief

**REFERENCES**

- The LCA and EPD for the Convert Product Platform were verified by Five Winds International. <http://www.fivewinds.com/>
- The EPD was registered by The Green Standard. <http://www.thegreenstandard.org/>
- ISO/TR 14025 Environmental labels and declarations – Type III Environmental Declarations
- ISO 14040 Environmental management – Life cycle assessment – Principles and framework
- ISO 21930 Environmental Declaration of Building Products

**GLOSSARY OF TERMS**

***Certification vs. Verification***

*When there is an agreed upon standard, or guidelines for product assessment, an auditor can certify whether the product meets the standard. If no standard or consensus guidelines exist, then claims made by a manufacturer are verified by an auditor.*

**ISO** – International Organization for Standardization (ISO) develops voluntary standards based on international consensus among the experts in the field.

**Five Winds International and The Green Standard** – Five Winds International verified InterfaceFLOR's life cycle assessment and the EPDs. The Green Standard re-verified and registered the EPDs in their system, setting the standard for future EPDs in our industry.

**WHICH ENVIRONMENTAL IMPACTS WERE MEASURED IN THE EPDS?**

**Acidification** – Causes damage to vegetation, buildings, aquatic life, and human health.

**Eutrophication** – An increase in nutrients in water or soil that affects biological balance of resident populations.

**Global Warming** – The impact of emissions that contribute to the “greenhouse effect” and disrupt nature’s control of the atmospheric system.

**Ozone Depletion** – The thinning of the earth’s stratospheric ozone layer due to emissions adversely affects human health, natural resources and the environment.

**Smog** – Reactive chemical compounds (from VOCs) cause adverse effects on human health, ecosystems and crops.

**Abiotic Depletion** – Consumption of non-renewable, non-living resources such as metals and minerals which may lead to habitat destruction.

**For additional information go to [www.interfaceflor.com/epd](http://www.interfaceflor.com/epd) or email [sustainability@interfaceflor.com](mailto:sustainability@interfaceflor.com).**

