

ENVIRONMENTAL IMPACT QUESTIONNAIRE (EIQ)

I. DIRECTIONS

A. Complete the following questionnaire and submit for review to:

Paul Jackson

B. Relate information concerning only one product per questionnaire.

C. All questions may not apply to every product or manufacturer. It is not expected the manufacturer will have addressed all of the environmental concerns expressed in the EIQ.

1. Respond to every question even if response is “not available”, “not applicable”, or “no”.
2. Attach additional sheets as required. Reference additional sheets to correspond with the question number.

II. IDENTIFICATION

A. Material/Product: carpet tile

Brand Name: Spring Planting

Manufacturer: Interface Flooring

What is the primary use or application for this product?

This is a carpet tile originally designed for commercial use that can also be used for residential purposes.

III. RESOURCE MANAGEMENT

A. Renewable Resources:

1. List renewable resources used as product raw materials. Provide percentage amounts in relation to complete (100 percent) product.

<u>Renewable Resource</u>	<u>Percentage</u>
<u>corn</u>	<u>n/a</u>

2. Does manufacturer obtain raw materials or fabricate this product outside of the United States: Y x N?

a. If yes, are United States environmental standards or more strict standards followed in these countries: Y N?

b. List countries involved.

B. Managed Resources:

1. Does extraction of product raw materials or fabrication of this product affect endangered specie(s): Y N? n/a

a. If yes, list species and describe effect, including methods for negative effects.

<u>Endangered Species</u>	<u>Effect</u>
<u>n/a</u>	

2. Products Containing Wood: Are wood materials obtained from certified sustainable forestry operations: Y N? **(does not apply)**

a. If yes, provide name of certification organization for each wood species being used in this project.

Species

Certification

Organization

b. If no, state where the product resources are produced and describe forestry operations.

Product Resources

Forestry Operations

C. Recycled Content:

1. List recycled materials used as product raw materials; distinguish pre-consumer and post-consumer materials. Provide percentage amounts in relation to complete (100 percent) product.

Recycled Material

% Pre-Consumer %

Post-Consumer

N/A _____

D. Embodied Energy:

1. Product Transport:

a. Where are raw materials acquired? Identify state and country.

Raw Material

Source (State and Country)

corn USA(mostly Nebraska and Iowa)

b. Describe means of transporting raw materials to the manufacturing plant.

<u>Raw Material</u>	<u>Transportation</u>
<u>PLA polymer</u>	<u>truck</u>

c. Where is product manufactured/fabricated? Identify state and country.

Georgia, USA

d. Is the product warehoused locally, regionally, or nationally?

nationally

e. Describe means of transporting product to distribution facilities.

Much of the business is done online, which minimizes need for shipping to distribution centers. Regular ground and air shipping procedures are used.

2. Production Energy: List energy sources used in production process; indicate which are renewable energy sources (e.g. wind, solar). Provide percentage amounts in relation to complete (100 percent) product.

<u>Energy Sources</u>	<u>Renewable</u>	<u>Percentage</u>
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<u>Natural gas</u>	<u>Y</u>	<u>x</u>	<u>N</u>	<u>N/A</u>
<u>Coal</u>	<u>Y</u>	<u>x</u>	<u>N</u>	<u>N/A</u>
<u>Fuel Oil</u>	<u>Y</u>	<u>x</u>	<u>N</u>	<u>N/A</u>
<u>Photovoltaic (Solar)</u>	<u>x</u>	<u>Y</u>	<u>N</u>	<u>N/A</u>

3. Provide an embodied energy study of the product from extraction of raw materials through production and assembly. Include an estimate for the total number of BTU's required per pound of finished products. Identify parameters for study.

Nonrenewable energy used: 14,000 BTU/ M2

4. Describe measures the manufacturer has taken to minimize energy usage in the production process.

They have improved efficiency and conservation methods to reduce energy consumption in the past 6 years.

E. Reuse/Recyclability/Disposal:

1. Reuse:

a. Can product be reused directly (in same or similar use):

x Y N?

b. If yes, discuss the possibility of direct reuse of the product after project demolition.

The carpet can be cleaned and repurposed through charitable organizations.

3. Describe the manufacturer's policy and program to facilitate the recycling or reuse of its product by accepting product returns at the end of their "useful life".

The product can be returned to InterfaceFLOR in LaGrange, GA.
Backing will be recycled, and the face fiber can be composted and possibly recycled in the future._____

IV. TOXICITY/HAZARDOUS MATERIALS

A. Toxic/Hazardous By-Products:

1. List the production wastes involved with the manufacture of this item. Distinguish the production wastes between toxic and non-toxic. Provide percentage amounts in relation to complete (100 percent) product.

<u>Toxic</u>	<u>Non-Toxic</u>	<u>Percentage</u>
____ N/A ____	____ N/A ____	____ N/A ____

2. Estimate the quantity of production waste produced per unit of finished product.

Solid waste generated per unit of product: 0.2 kg/ square meter or 0.5 lb/ square meter_____

1. Is reclamation of production waste done on site: ____Y ____N?

N/A

2. With outside services:

___Y ___N? N/A

- a. If outside services are used, list companies involved.

N/A

4. Is waste water reclaimed by manufacturer: ___Y ___N? N/A

- a. If yes, describe the process of recycling/reuse of waste water.

N/A

5. Describe the manufacturer's active steps to minimize or eliminate production wastes; include process of liquid and solid waste material treatment or reclamation if performed at manufacturing site.

Interface has initiated a program called QUEST (Quality Using Employee Teamwork and Suggestions) that is focused on eliminating waste locally. They have outlined goals for reducing greenhouse gas emissions and reducing energy consumption.

6. Describe the manufacturing procedures and chemicals involved that would be considered better than industry standard.

The Spring Planting line uses PLA polymers made from corn, a renewable resource, rather than making the carpet from polymers that are petroleum-based.

B. Toxic/Hazardous Contents (carcinogens and other hazards inherent in product/material):

1. Provide a complete chemical profile of the item; include all chemical components and provide percentage amounts in relation to complete (100 percent) product; identify biocides (mildewcides or in-can preservatives) and carcinogens listed by any of the following:
 - a. United States Environmental Protection Agency (EPA) Carcinogen Assessment Group (CAG) list of carcinogens.
 - b. Clean Air Act Sections 109, 111, and 112.
 - c. The National Toxicology Program's latest published "Annual Report on Carcinogens".
 - d. IARC Human Carcinogens (Group 1, 2A, and 2B).
 - e. California Proposition 65.

<u>Chemical</u>	<u>Carcinogen</u>	<u>Percentage</u>
<u>N/A</u>	<u>Y</u> <u>N</u>	<u> </u>

C. Material Safety Data Sheet (MSDS):

1. Provide Material Safety Data Sheet (MSDS).

- a. Articles: Finished products which are manufactured off-site and shipped to the project for installation while conforming to Title 29 of the Code of Federal Regulations, OSHA Hazard Communication Regulation 29CFR 1910.1200, Section (b)5 and Section (c) are defined as articles. If by being defined as an article, a MSDS has not been developed for a particular product, then provide MSDS on raw materials, goods, and items used in the fabrication of that article.

D. Outgassing/Reactivity:

1. Chlorofluorocarbon (CFC):

- a. Are CFC's or HCFC's used in the manufacture and/or content of the item specified: N/A

___Y ___N?

- b. If CFC's or HCFC's were previously used in the product and/or its manufacture, describe measures taken by manufacturer to eliminate their use.

N/A

2. Indoor Air Quality:

- a. Does the product outgas (emit) carcinogens or other hazardous substances into the air after installation, including final curing/drying: ___Y x N?

- b. If yes, submit IAQ test report.

E. Electromagnetic Radiation:

1. Does the product emit electromagnetic radiation: ___Y xN?
 2. If yes, at what rate per hour? _____
 3. If yes, describe methods for installation, use, and maintenance of product to minimize generation of and occupant exposure to electromagnetic radiation.
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F. Compliance with Regulations (Environmental Statutory Compliance):

1. Does the manufacturer meet all federal, state, and local environmental laws, including laws governing air emissions, waste water treatment, and solid waste disposal/treatment:

xY ___N?

2. Has the manufacturer met the above criteria for the previous five years: xY ___N?

3. List the applicable standard.

EPA, CRI Green Label

3. Does the product meet applicable industry standards, such as ASTM, Green Seal, manufacturing standards, LA or NY research report numbers, and UL approvals: ___Y ___N? N/A

4. List these standards.

N/A

V. PERFORMANCE - INSTALLATION

A. Environmental Procedures/Precautions:

1. Describe special procedures and precautions to be used while handling and installing the product:

All that is needed are the tiles and a carpet knife.

2. Identify accessories, such as fasteners, sealers, and adhesives that are non-toxic (or less toxic than industry standard), energy efficient, or recycled or recyclable products?

FLOR dots are small adhesive patches that go on the back of the carpet tiles. They are not heavy-duty strength, as to facilitate easy removal/rearrangement/replacement of tiles.

B. Installation Energy:

1. Product Transport: List the means to transport the finished product to the construction site.

Regular postal shipping, air or ground

2. Installation: List energy means and describe energy requirements for installation of the product.

All that is needed is manpower. No heating or other energy sources are used.

C. Construction Waste:

1. List the recommended method(s) for proper products disposal; stipulate preferred method and restrictions which might apply.

Return to company.

2. Comment on the environmental impact of the product as a waste material.

The face fiber will biodegrade.

3. Packaging:

- a. Describe packaging for the product.

Product is shipped in 20"x20" boxes (like oversized pizza boxes) with 6-12 tiles in each box.

- b. Does manufacturer accept return of used packaging for reuse:

__Y__ N? N/A

- c. If yes, state limitations and procedures for packaging return.

VI. PERFORMANCE - OPERATIONS

A. Maintenance

1. Describe the recommended cleaning and maintenance for the product using products which have minimal VOC emission.

Rinse soiled tiles in sink, dry. Vacuum.

2. Estimate the "useful life" expectancy for this product.

15 years?

3. Are replacement parts available: x Y ___ N?

a. If yes, can replacement parts be installed in the field:

Y N?

4. Provide a copy of the life cycle analysis for this product. N/A-LCA for PLA can be found at
http://www.cargilldow.com/corporate/life_cycle/docs/CDPubApploflifeCycle.pdf
5. Provide a copy of the manufacturer's warranty for this product.

Guarantee and Return Policy

InterfaceFLOR wants you to be satisfied with your purchase. If you are not satisfied with your purchase for any reason, you may return any of your InterfaceFLOR product that is unused and in new condition within 30 days of purchase for exchange or refund (excluding shipping and handling fees). After 30 days of purchase, your InterfaceFLOR product is guaranteed for one year from the date of purchase to be free from manufacturer's defects, and you may return any of your InterfaceFLOR product that has a manufacturer's defect within one year of purchase for exchange or refund (excluding shipping and handling fees). Shipping and handling fees are non-refundable. We cannot accept collect deliveries. For return authorization, please go to www.interfaceflor.com or call customer service at 1-866-281-FLOR.

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B. Energy Efficiency (energy required to operate/maintain):

1. Estimate BTU's required to operate the product when new?

 N/A ; after five years? N/A ;
after ten years? N/A

C. Compliance with Regulations (Environmental Statutory Compliance):

1. Does the product meet all federal, state, and local environmental laws, including laws governing energy efficiency and air emissions:

 x Y N?

2. Has the product met the above criteria for the previous five years:

 x Y N?

3. List the applicable standards.

 WRI/WBCSD Greenhouse Gas Protocol

VII. CORPORATE COMMITMENT

A. Corporate Environmental Policy:

1. Provide copy of manufacturer's stated environmental policies.

VISION

To be the first company that, by its deeds, shows the entire industrial world what sustainability is in all its dimensions: people, process, product, place and profits - by 2020 - and in doing so we will become restorative through the power of influence.

MISSION STATEMENT

"Interface will become the first name in commercial and institutional interiors worldwide through its commitment to **people, process, product, place** and **profits**. We will strive to create an organization wherein all **people** are accorded unconditional respect and dignity; one that allows each person to continuously learn and develop. We will focus on **product** (which includes service) through constant emphasis on **process** quality and engineering, which we will combine with careful attention to our customers' needs so as always to deliver superior value to our customers, thereby maximizing all stakeholders' satisfaction. We will honor the **places** where we do business by endeavoring to become the first name in industrial ecology, a corporation that cherishes nature and restores the environment. Interface will lead by example and validate by results, including **profits**, leaving the world a better place than when we began, and we will be restorative through the power of our influence in the world."

END OF ENVIRONMENTAL IMPACT QUESTIONNAIRE