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E N V I R O N M E N T A L

# TERRATEXT™

SUSTAINABILITY 1.2  
POLYESTERS 1.3  
BIO-BASED 1.4

Terratex®-classified fabrics are one of the major ways we at Interface Fabrics Group support our commitment to sustainability. This broad range of fabric choices – made from 100% recycled or compostable materials – is also completely recyclable. Plus, Terratex is representative of our commitment to increasing overall knowledge of environmental issues as part of our journey toward sustainability. We also realize the importance of working with dedicated researchers and individuals like you. **Because the bottom line is, we're all striving to become increasingly sustainable.**

## 1.2 - MORE ON SUSTAINABILITY

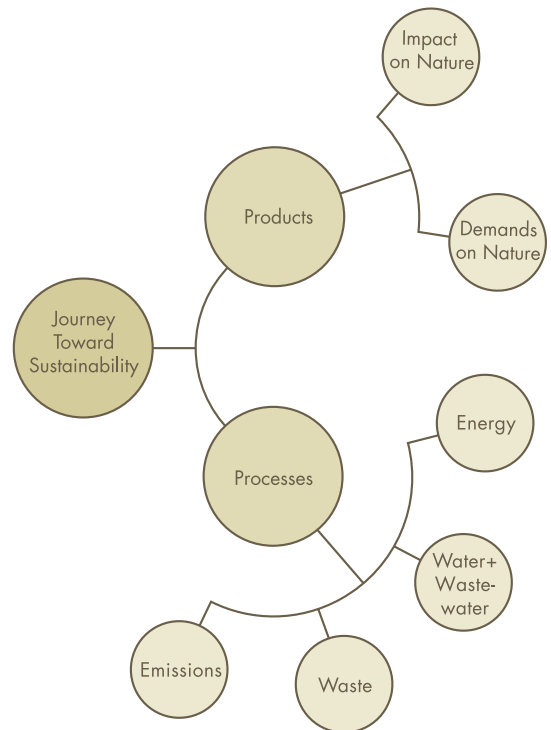
Sustainability can seem pretty confusing if you don't first understand the overall picture. Think of your impact on the environment as a footprint – sustainability is taking the initiative to make sure that footprint is as light as possible, if it has to leave a mark at all. Basically, sustainability means working and interacting in ways that don't adversely affect living systems and our natural resources.

To name just a few examples:

- It's making the effort to eliminate waste altogether, not just reduce it.
- It's depending on renewable energy sources as opposed to fossil fuels.
- And it's working to eliminate all toxic emissions.

Sustainability is closing the loop, or breaking the traditional "take-make-waste" system and using products and processes in a way that keeps returning them to a cyclical flow where they can be reused over and over again. Sustainability doesn't happen overnight. It is a journey of many steps toward finding better, smarter ways of doing things. Interface Fabrics Group is committed to that journey.

Last but not least, sustainability also involves sharing education and knowledge among different stakeholders to find new, environmentally responsible ways of doing business. Because once again – we're all in this together.



**Journey Toward Sustainability**

**It's actually not that complicated.** The first thing you need to know is that all polyester is manufactured from petroleum products. The process of making polyester involves the use of a metal called antimony as a catalyst in the manufacturing process, and virtually everything in the world made from polyester contains trace amounts of antimony. The next thing to know is that polyester is recyclable and that there are basically two kinds of recycled polyester. A first type, post-consumer polyester, is made from the waste material left over once a consumer has used a product (for example, soda and water bottles).

A second type, post-industrial polyester, is derived from waste generated by an industrial process before the polyester is used by the consumer. We use both of these recycled polyesters as raw materials in our Terratex-classified polyester fabrics. By doing so, the environment benefits in two important ways. First, there is less waste going to landfills. And second, there is less demand for petroleum products and fewer environmental impacts from the processing of the petroleum products into polyester.



Over the last several years, antimony-free polyester has been researched and commercialized in very limited quantities by several companies in Europe. We welcome this development and would like to see it eventually replace all polyester – leading to antimony-free recycled raw materials in the future. But until these materials are replaced, it makes sense to reuse the existing polyester in all possible applications including fabric. We believe that the first and best use of antimony-free polyester is where recycled polyester cannot be used, like the manufacture of plastic soda and water bottles.

By recycling polyester, we are keeping it out of landfills and reducing the use of nonrenewable materials. The introduction of antimony-free polyester into products that cannot use recycled material will ultimately result in antimony free recycled polyester. At which point we will achieve the environmental benefits of both. Until then, recycled polyester is one important step on a journey toward more sustainable materials.

## 1.4 - BIO-BASED PRODUCTS – LOOKING TOWARD THE FUTURE.

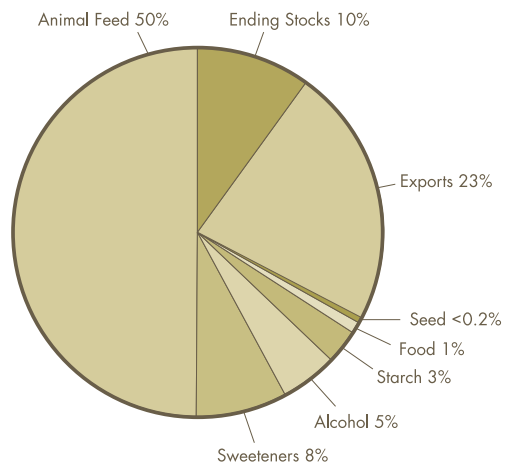
**Another way of making sure that environmental footprint remains light is to use bio-based products.** Many IFG companies are using or experimenting with fibers and products derived from natural renewable resources like corn, rice or beets. By using resources like these, manufacturers depend less on nonrenewable resources. Plus, many of these bio-based products are more environmentally friendly at the end of their service life – under the right conditions they are compostable, recyclable or reclaimable.

For example, one company has discovered a way to create polylactide polymers from the natural sugars found in corn. These polymers can be used to produce textiles, plastics and packaging materials that are compostable. Products like these can replace ones made from non-renewable materials that traditionally end up in landfills. The creation of these bio-based products uses comparatively small amounts of resources so food supplies are not affected. In reality, the amount of corn used to make polylactide polymers in one facility currently under construction is less than 0.2% of the total U.S. corn production. Compare this amount to the fact that the U.S. uses 5% of its corn for alcohol, and feeds 50% of it to animals.

Discoveries like these are setting the stage for brand new innovations that will play a large role in creating more environment-friendly materials and processes. Already there are numerous companies vigorously pursuing plans for bio-based products. We are proud to be working with some of these companies, and eager to continue playing a part in the sustainability endeavor. As we said, we are on a journey.

### Corn Use in the United States

The amount of corn used in one PLA facility is less than 0.2% of the U.S. corn production and can be produced on 110,000 acres or a square farm 13 miles on a side.



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E N V I R O N M E N T A L

# TERRATEXT™

LIFE CYCLE ASSESSMENT 2.1  
BACKGROUND 2.2  
THE RESULTS 2.3  
MEANINGS 2.4

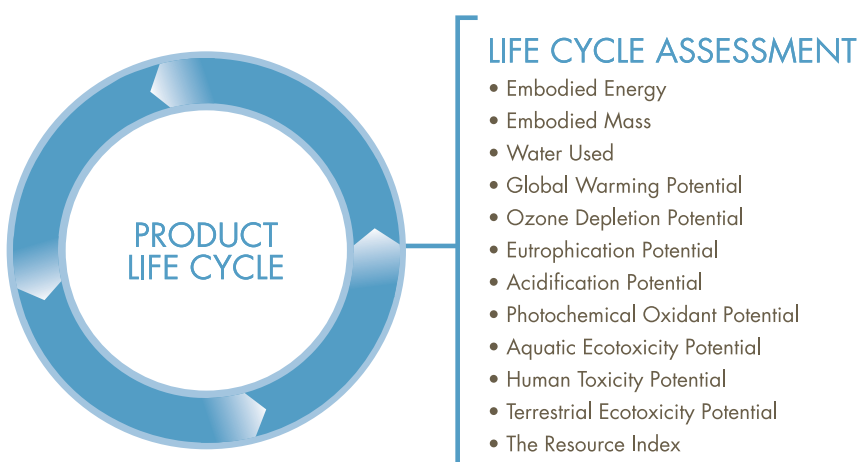
two

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Talking about a commitment to sustainability is certainly a step in the right direction, but acting on that commitment is what really counts. Which is why we at Interface Fabrics Group are dedicated to finding ways to help preserve the earth, and to creating products that will help our clients do the same. Our Terratex®-classified fabrics are a great illustration of this dedication because they are made from 100% recycled or bio-based materials that are also recyclable or compostable. Terratex is our way of making sure that you always have the option of specifying an earth-friendly fabric. But, because we also believe that knowledge is a key factor in achieving overall sustainability, we've gone a step further to find out exactly how much of a difference it makes when you specify Terratex. That's where the Life Cycle Assessment comes in.

## 2.1 - WHAT ON EARTH IS A LIFE CYCLE ASSESSMENT?

Fortunately, defining a Life Cycle Assessment (LCA) isn't nearly as complicated as performing one. A LCA is a meticulous study that looks at the environmental impact of the entire life cycle of a product — from the time it's created, until it's either disposed of or recycled — by analyzing all the raw materials and inputs involved in the life cycle and all the outputs that are created by the life cycle. For example, a standard LCA looks at things like the amount of energy needed to manufacture a product, how that process affects the ozone and what kind of waste materials the process creates. The assessment does the same thorough analysis for the raw materials that go into the product as for the disposal of the product at the end of its useful life.



## 2.2 - A LITTLE BIT OF BACKGROUND

**Because of IFG's commitment to sustainability,** our Terratex-classified fabrics are made with recycled polyester as opposed to the virgin polyester used to manufacture many other fabrics. When we use recycled polyester, the environment immediately benefits in two key ways. First, by recycling, less waste ends up in landfills — and because the polyester fabric itself is also recyclable it too can be reused. Second, there is less of a demand for petroleum products (used to make polyester). And less demand means fewer environmental impacts from the process that converts petroleum-based elements into polyester. In order to determine exactly how much of a measurable difference Terratex-classified fabrics truly make, our Interface Research Corporation performed a LCA for one linear yard of fabric made with recycled polyester and a LCA for one linear yard of fabric made with virgin polyester, then compared the results. Of course, the study was then peer reviewed by an independent third party to ensure that the methodology was unbiased, thorough and scientifically sound.

Here are some of the things studied in our Life Cycle Assessments.

- **Embodied Energy** – amount of energy contained in both the raw material and the product, and the amount of energy required to manufacture the raw material and the product.
- **Embodied Mass & Water Used** – the total mass and water required to produce, recycle and/or dispose of raw materials and products.
- **Global Warming Potential** – the release of gasses like carbon dioxide and methane which contribute to global warming.
- **Ozone Depletion Potential** – the release of substances that contribute to the destruction of the earth's ozone layer.
- **Eutrophication Potential** – the release of nitrogen or phosphorus into water or soil, which leads to loss of biodiversity of species.
- **Acidification Potential** – the release of materials that can cause damage to buildings and harm terrestrial, animal, plant and human health.
- **Photochemical Oxidant Potential** – the release of harmful substances which react to form ground-level ozone, resulting in vegetation damage and human health problems.
- **Aquatic Ecotoxicity Potential, Human Toxicity Potential, and Terrestrial Ecotoxicity Potential** – these factors consider 181 substances and their toxic impact on aquatic, terrestrial and human species.
- **The Resource Index** – An approximation of the scarcity of non-renewable natural resources like oil, coal, natural gas and metals.

## 2.3 - THE RESULTS (EVEN WE WERE SUPRISED)

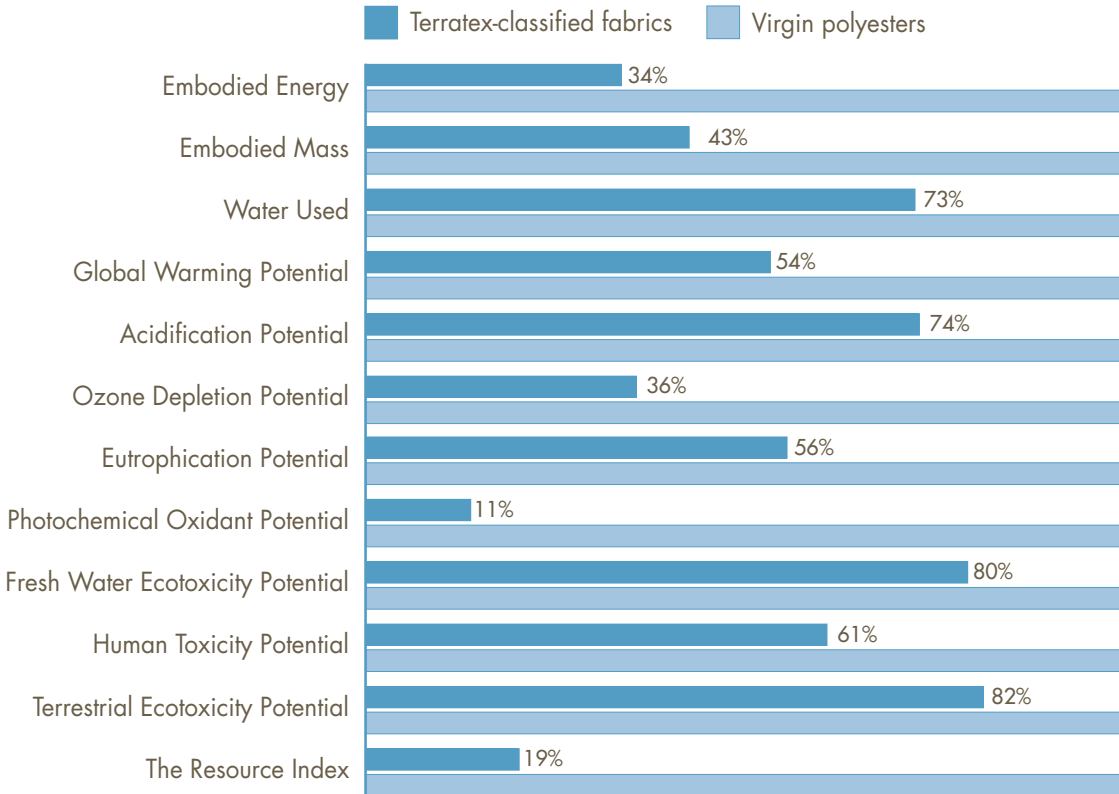
**The outcomes of the Life Cycle Assessments were astounding.** Fabrics made from the Terratex protocol (see Terratext 1 on our website), have a significantly lower environmental impact than fabrics made with virgin polyester. In fact, these fabrics showed exceptional environmental improvement in all twelve of the categories studied. For the 50 million pounds of recycled polyester we used from 1996 to 2001, we saved an amount of energy equal to 484,150 barrels of fuel oil, or roughly the amount of oil it takes to heat 22,382 U.S. homes for one year. What's more, by working with recycled polyester, we also used 74 million less gallons of water than virgin polyester would require. And that's not even the half of it. But we'll let the rest of the results speak for themselves.

## 2.4 - WHAT THIS MEANS FOR YOU

Obviously, we've realized for quite some time that recycling polyester is better than making more. Now we know exactly how much better. Terratex-classified fabrics have proven to be head and shoulders above the rest when it comes to earth-friendliness. Which means — due to an expansive array of fabric choices — you can get precisely what you need without compromising the environment. After all, why create more polyester when the material we already have works so nicely?

### Environmental improvement for Terratex-classified fabrics

Our Life Cycle Assessments show that Terratex-classified fabrics have significantly less of an impact on the environment as compared to fabrics made with virgin polyesters.



Generally, in a LCA analysis a difference of 20-30% is considered significant.

### Additional Terratex information

To learn more about Terratex-classified fabrics, the value of the processes behind those fabrics, and our dedication to using earth-friendly materials, please visit [www.terratex.com](http://www.terratex.com). Also on this site, you'll find Terratex 1 (which includes the Terratex protocol), ecometrics on Terratex manufacturing, and a complete list of furniture manufacturers and fabric suppliers that offer Terratex-classified fabrics.



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E N V I R O N M E N T A L

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DYE AND CHEMICAL PROTOCOL 3.1  
GREEN POWER 3.2  
LEED™ SYSTEM 3.3

three

3

At Interface Fabrics Group, we've always emphasized that sustainability is a journey rather than a destination. Terratex®-classified fabrics provide a perfect example of the step-by-step nature of the journey. We set out by focusing on fiber content, which represents 99% of the make-up of our fabrics. This led to the introduction of recycled polyester in 1994 and most recently, bio-based renewable fibers. Next, we looked at the process by which we make our fabrics, using "ecometrics" as a measurement system. This resulted in the Terratex Life Cycle Assessment (LCA) examining environmental impact at every stage of the Terratex process. Through these process initiatives we have dramatically reduced the environmental footprint of our operations. These two steps, Product and Process, advanced our sustainability journey into uncharted territory for sustainable manufacturing. Now we are embarking on another step in our journey – and once again, we want to share it with you.

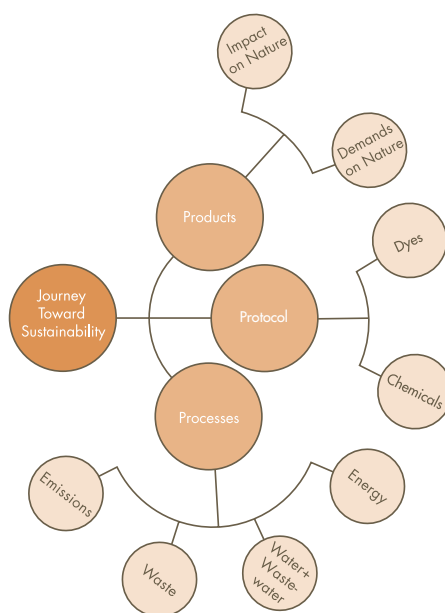
### 3.1 - DYE AND CHEMICAL PROTOCOL

Dyes and chemicals account for just 1% of the total content of our fabrics. Yet the Terratex LCA confirmed that even the smallest elements of our process can have a measurable environmental impact. Therefore, we are working to ensure that the dyes and chemicals we use meet the highest environmental standards possible.

We've developed the IFG Dye and Chemical Protocol to guide us in our task. The Protocol is a rigorous, systematic method of evaluating all the ingredients in all the materials we use to manufacture our fabrics. It requires us to break down each material into its simplest chemical form. To do this, we require our suppliers to provide us with all ingredients contained in their products. This detailed and confidential information goes far beyond government requirements for disclosure. We then screen these chemical compounds against the best, most current scientific information available. Any compound considered harmful to human health or the environment will not be allowed in Terratex fabric. Any supplier unwilling to participate fully with our protocol will not supply materials for Terratex.

IFG is committed to the journey toward sustainable manufacturing. This protocol is an important element of that journey. We believe that in order for any such tool to be useful to our customers, it should be independently validated, transparent, and available. Just as Interface Corporation retained an independent third party to verify the Terratex LCA, we are having the D&C Protocol independently reviewed by leading experts to validate that the implementation of the protocol will

continued



**Journey Toward Sustainability**

result in fabrics that are not harmful to human health or the environment within the limits of the best available scientific knowledge. Fabric made in accordance with the protocol will be clearly labeled as such and identify specifically what assurances the customer can expect from such fabrics. A general description of the protocol and the independent validation will be available on our website.

The D&C Protocol will be phased into our system as quickly and efficiently as possible. For your specifying convenience, we will designate all Terratex-classified fabrics that meet this rigorous protocol.

With this latest advance, we now have the opportunity to evaluate our sustainability efforts from a 360° perspective encompassing product, process and protocol. What this means for you is assurance that Terratex fabrics have significantly less environmental footprint than any others on the planet. From content to production to chemistry, our fabrics reduce the burdens placed upon living systems – and preserve precious resources for generations to come.

Interface Fabrics Group recently announced it will produce one million yards of Terratex®-classified fabrics in accordance with a program that increases the amount of clean, renewable energy available in the United States. All of the energy we consume to manufacture these fabrics will be replaced in the nation's power grid by wind energy. This is one more step toward fulfilling our long-term goal of eliminating dependence on non-renewable energy sources.

## 3.2 - GREEN POWER – WE DID IT, YOU CAN TOO

IFG is increasing the availability of renewable energy by purchasing 2.5 million kilowatt hours of “green tags” – the term for Renewable Energy Certificates. This purchase means that 2.5 million kilowatts of energy we draw from the nation's power grid will be replaced by wind energy. The result? An increased percentage of clean energy available for every electricity user in the U.S., and a corresponding reduction in non-renewable polluting sources.

The purchase of green tags allows IFG to offset electrical energy used at our Maine and Massachusetts operations. The EPA says this will save approximately 4.1 million pounds of carbon dioxide emissions – equivalent to taking 410 cars off the road each year!

This purchase, along with our use of biomass (wood chips) for thermal energy at our Maine facilities, brings our green power usage in Maine to over 58% of total energy consumed.

Terratex products manufactured under this program meet the environmental and consumer protection standards established by the non-profit Center for Resource Solutions. Through its Green-e program, The Center for Resource Solutions independently verifies the validity of renewable energy claims to help consumers select energy options that are better for the environment. Look for the Green-e logo on select Terratex swatch cards and memo tags signifying that 100% of the electricity used to make these products has been matched with Renewable Energy Certificates.

Purchasing green tags is the most efficient way of making green energy available to electricity users across the United States – regardless of where they live – and it's one of the easiest ways of reducing the environmental footprint of a project. Green tag purchases can even contribute to the achievement of LEED credits for both new and existing buildings. From an operational standpoint, nothing changes. From an environmental standpoint, the impact is huge.

For more information about green power for your project, visit [www.green-e.org](http://www.green-e.org).



**Look for this symbol certifying that 100% of the energy used to make a Terratex product has been matched with Renewable Energy Certificates.**

The U.S. Green Building Council (USGBC) has developed the LEED™ system as a means of promoting environmentally responsible building. Architects, designers and product suppliers who understand how to help their customers achieve LEED certification will enjoy access to a rapidly growing market – and will be in a position to make meaningful contributions to the sustainability movement.

### 3.3 - TAKING THE LEED

LEED, which stands for Leadership in Energy and Environmental Design, is a voluntary, consensus-based rating or certification system that aids in the development of high-performance, sustainable buildings.

Introduced just three years ago, LEED has already spawned three new pilot rating systems: LEED CI (Commercial Interiors), LEED CS (Core and Shell) and LEED EB (Existing Buildings). These programs join the original LEED, now referred to as LEED NC (New Construction).

Each LEED system includes a project checklist organized around such categories as Sustainable Sites, Water Efficiency, Energy and Atmosphere, Materials & Resources, and Indoor Environmental Quality. Each category contains a menu of options that can be implemented to achieve points. Based on the number of points achieved, a project may earn one of the levels of LEED certification: certified, silver, gold or platinum. (Visit [www.usgbc.com](http://www.usgbc.com) for a thorough explanation of the LEED systems.)

#### Can Terratex® earn LEED Points?

Although the role of textiles in the LEED system is comparatively small, Terratex can indeed contribute to achieving LEED certification.

Terratex used in applications such as wall covering or acoustical treatment, or in combination with new and refurbished furniture, can contribute to meeting the LEED CI requirement for Recycled Content in the Materials and Resources category. It may be possible to earn “innovation points” by using the Terratex Life Cycle Assessment in combination with other product LCA’s. Certain Terratex fabrics certified through the Green-e program may also help earn points.

Additional opportunities for using Terratex to attain LEED certification are being explored as LEED pilot programs expand to include multiple product attributes, and as our own sustainability strategies expand. Already, we are investigating the potential benefits of our new Dye & Chemical Protocol and our Green Power usage in achieving LEED certification. As always, for the very latest information, visit [www.terratex.com](http://www.terratex.com).



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