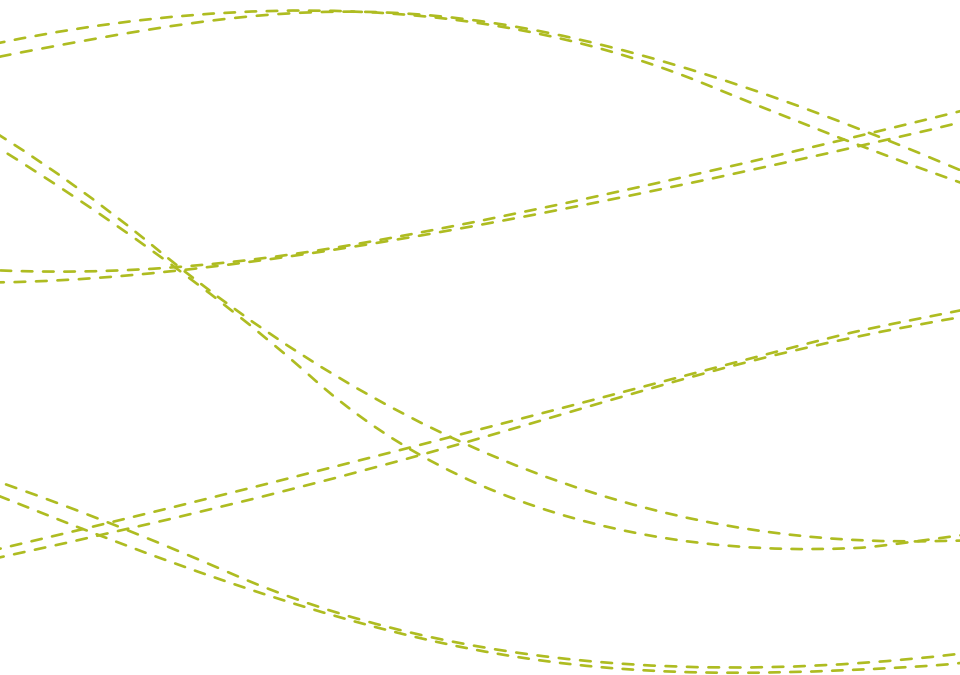


# TerraTEXT™ 101

Our Journey Toward Sustainability



## True Story

In 2007, InterfaceFABRIC separated from its parent company to form an independent venture – one built on a 100-year legacy of textile manufacturing yet empowered by entrepreneurial freedom.

Today, InterfaceFABRIC has become True, Inc. True offers the same products and services, employs the same people, and is committed to the same sustainability goals as its predecessor. The difference is that we can now be even more innovative, creative and responsive in service of our customers ... and our planet.



“But the basic value of a sustainable society, the ecological equivalent of the Golden Rule, is simple: each generation should meet its needs without jeopardizing the prospects for future generations to meet their own needs.”

World Commission on Environment and Development

Much of society does not understand the basic principles of natural systems or how individual and collective human actions affect them. True is dedicated to increasing the overall knowledge of environmental issues as part of our journey toward sustainability. TerraTEXT is one of the tools we use to help our customers, suppliers, colleagues and communities better understand what we're doing to “sustain that which sustains us.” We hope it will inspire them to undertake their own journey.

TerraTEXT 101 summarizes the first five editions of our TerraTEXT newsletter. The level of knowledge and sophistication regarding sustainability has risen dramatically since we published the first issue in 2001. Considered sequentially, TerraTEXT documents the evolving eco-awareness of the marketplace.

# Chapter 1: Sustainability

## What is Sustainability?

Sustainability is a complex subject. At times it can be confusing. The term is often misunderstood and misused.

For many people, sustainability translates into being “environmentally friendly,” but it is broader than that. It represents much more than reducing waste, protecting wildlife and recycling.

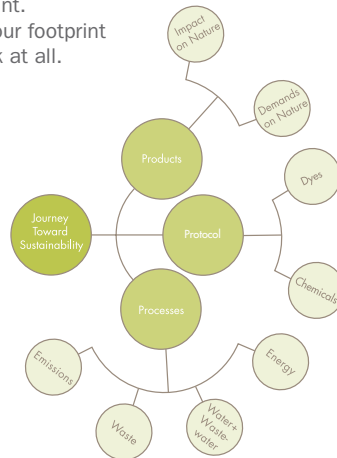
Understanding sustainability requires an awareness of how everything we do, everything we take, everything we make and everything we waste affects natural capital, human capital and economic capital. It demands that we consider how our actions will ultimately affect future generations.

## Reducing the Footprint

Think of humankind’s environmental impact as a footprint. Sustainability is taking the initiative to make sure that our footprint is as small and as light as possible – if it leaves a mark at all. Sustainability demands that we work and interact in ways that increase the vitality of all living systems.

Sustainability involves closing the loop, or breaking the traditional “take-make-waste” system, and designing products and processes that mimic nature – where the concept of waste simply does not exist. Examples of this include:

- Making the effort to eliminate waste altogether, not just reduce it.
- Depending on renewable energy sources (current solar income) as opposed to fossil fuels (ancient solar income) – our goal is to never take another drop of oil from the Earth.
- Increasing use of benign chemicals and processes.



## Sustainability is a Process

Sustainability is hard work. It’s a journey of many steps toward finding better, smarter ways of doing things. No individual and no company is truly “sustainable.” But at True, we strive to emulate nature, the ultimate “low-cost producer”.

## Mapping the Journey

The journey to becoming a sustainable enterprise can be likened to climbing a mountain that is “higher than Everest.” For many companies, it seems, the first and most difficult step on this climb is admitting that the mountain exists in the first place.

At True, we see the mountain and we’re climbing it. We’ve even created a map to guide us on our trek. The map identifies seven “marker posts” that we are striving to reach in order to achieve our sustainability goals:

- 1. Zero Waste:** Eliminating all forms of waste in every area of business.
- 2. Zero Harmful Emissions:** Eliminating toxic substances from products, vehicles and facilities.
- 3. Renewable Energy:** Operating facilities with energy resources that are constantly replenished – e.g., solar, wind, landfill gas, biomass and low-impact hydroelectric.
- 4. Completing the Cycle:** Redesigning processes and products to “close the loop” and create cyclical material flows where waste materials become raw materials for other purposes.
- 5. Transportation Transformation:** Transporting people and products efficiently to reduce waste and emissions.
- 6. Engage the Community:** Sharing information to help create a culture of sustainability that extends far beyond our own company.
- 7. New Business Model:** Focusing on the true cost of production – not just economic but also environmental and social impacts – to bring about market-based incentives for sustainable commerce.

# Measuring Sustainability

Measurement is key to our sustainability effort. Measuring the environmental performance of our products and processes confirms that we are spending our time and effort on things that really make a difference. It validates (or invalidates) our assumptions on what is really “green” and helps us identify areas that still need attention and improvement. It enables us to monitor our real progress.

All of this requires measurement tools that are credible, scientific and objective. The current “gold standard” for such a tool is Life Cycle Assessment.

## Life Cycle Assessments

A Life Cycle Assessment (LCA) is an evolving science that looks at the entire life cycle of a product from the moment it comes out of the ground as a raw material, to its conversion into a product, to its use and finally, its disposal.

This full life-cycle protocol uncovers the whole environmental story. It delivers a comprehensive yet easily understandable snapshot of the environmental impact of a specific product. It helps both manufacturers and their customers objectively evaluate the environmental “cost” of a product.

Here are some of the things typically studied in an LCA:

**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 gases like carbon dioxide and methane that 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 phosphorous 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 that react to form ground-level ozone, resulting in vegetation damage and human health problems.

**Aquatic Toxicity Potential, Human Toxicity Potential, and Terrestrial Toxicity 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 resources like oil, coal, natural gas and metals.

True  
subjected its  
recycled  
Terratex®-brand  
fabrics to an  
LCA. You’ll  
find the  
results on  
page 10.

# Chapter 2: Terratex®

## What is Terratex?

In 1995, we introduced the Terratex brand – the industry’s first collection of recycled polyester commercial fabrics. Terratex-classified fabrics have played a key role in reducing our environmental footprint, because they meet all four of the following criteria:

- 1. Made from 100% recycled or renewable materials.**
- 2. Manufactured using increasingly sustainable processes.**
- 3. Made to meet or exceed industry standards for quality and performance.**
- 4. Recyclable or compostable at the end of its useful life.**

Let’s take a closer look at just how the Terratex line fulfills each of these criteria.

## 1. Made from 100% Recycled/Renewable Material

The Terratex line includes both recycled polyester and renewable bio-based fabrics.

### Polyester Fabrics

All polyester is manufactured from petroleum products. Petroleum is a limited natural resource, and the processing of petroleum products into polyester carries substantial environmental, economic and social “costs.”

These costs are greatly reduced by recycling existing polyester. There are basically two types of recycled polyester:

- **Post-consumer polyester**, made from waste material left over once a customer has used a product – e.g., soda and water bottles.
- **Pre-Consumer polyester**, 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. This reduces the amount of both types that go to landfills, decreases the demand for petroleum products and impacts the environment to a far lesser degree than processing petroleum products into polyester.

### Bio-based Fabrics

Just as sustainability is a journey, so is our Terratex initiative. We continue to innovate new ways to reduce the footprint of the Terratex brand. In 2004, we introduced the first-ever line of commercial interior fabrics made from bio-based fibers.

Bio-based fibers are derived from starch-based agricultural products. The starch portion of these crops is converted into sugar and fermented to produce lactic acid, which is then

processed and polymerized to form polylactic acid (PLA). PLA polymers are then spun into fiber we use to manufacture several of our Terratex-classified fabrics.



### Closing the Loop

Unlike petroleum-based textiles, bio-based textiles are made with renewable resources. PLA-based fabrics are also completely compostable at the end of their useful lives, as we validated in a joint project with Michigan State University, the State of Michigan and the Sustainable Research Group (SRG).

This project demonstrated that bio-based fibers can be blended with standard composting materials such as manure to produce a high-quality compost that lessens the need for traditional fertilizers. This is an attractive feature to the growing number of farmers transitioning to organic farming methods.

Recall that “Completing the Cycle” is one of the seven marker posts guiding us in our journey to sustainability. Bio-based fabrics are a prime example of redesigning our processes and products into cyclical material flows that emulate nature and eliminate the concept of waste.

### InterfaceFABRIC (now True, Inc.) Receives “New Technologies in Renewables” Award from Society of Plastics Engineers

Innovative Bio-based Fabric Composting Project Recognized

**Orlando, FL** – March 8, 2007 - The Society of Plastics Engineers today recognized InterfaceFABRIC, Inc., a pioneer in using increasingly sustainable technologies, with its “New Technologies in Renewables” award for the company’s bio-based fabric composting project. The award was presented at the Society of Plastics Engineers’ conference in Orlando, FL, and was accepted on InterfaceFABRIC’s behalf by Bill Foley, former director of new business development. InterfaceFABRIC makes panel and upholstery fabrics for commercial interiors, primarily marketing to original equipment manufacturers.

“InterfaceFABRIC is committed to ‘closing the loop’ – or keeping materials in the technical loop – by recycling through our fabric reclamation program, ReSKU®,” explained Mr. Foley. “Using bio-based materials – in this case, fiber extruded from polylactic acid, or PLA – requires new thinking to return the materials to the carbon cycle.” InterfaceFABRIC teamed up with Michigan State University Extension and the Michigan Department of Environmental Quality, as well as customer Herman

Miller, Inc. and Shady Side Farm in Holland, Michigan, to experiment with a composting project for one of the company’s bio-based Terratex® fabrics. While PLA is bio-based, early attempts by others to biodegrade the polymer had not been successful.

By introducing fabric scraps to a composting process at Shady Side Farm that includes waste sawdust, straw, poultry manure and a pilot-scale rotary drum compost vessel, the project team was able to experiment with the time, temperature, moisture, pH, aeration, odor, carbon and nitrogen metabolism required to achieve complete degradation of the polymer. Key to the process was keeping the compost clear of any toxic chemicals via InterfaceFABRIC’s Dye and Chemical Protocol during the yarn handling stage and throughout the manufacturing process. Recently proven to be replicated at the commercial scale, the results show the compost to be suitable as a high quality soil amendment that can be sold to local landscape companies.

**In 2007, The Society of Plastic Engineers recognized our bio-based fabric composting project with a “New Technologies in Renewables” award.**

### Potatoes to Plastics

“Everybody is looking for corn to build the next bio-based products,” says Stacie Beyer, Corporate Environmental Manager for True. “We want to look at something different.”

She’s speaking both for True and a coalition of businesses, scientists and government entities that have launched the “Potatoes to Plastics Project.” The University of Maine, the Alliance for a Clean and Healthy Maine, Green Harvest Technologies, Tom’s of Maine, Sagoma Technologies and Correct Building Products are just some of the parties involved in exploring the feasibility of using potatoes to produce bio-based plastics.

At True, our vision is to make PLA-based fabric in our Maine manufacturing plants out of Maine potatoes. We’re one step closer to this goal with the completion of Phase I of the Potatoes to Plastics Project, which concluded:

- In concept, potato starch can be processed into PLA polymers for bioplastic production.
- Potatoes are an economically viable alternative to corn for PLA.
- The amount of PLA we need could likely be supplied by waste potatoes – so we would have no impact on the food supply. (It’s also worth noting that Maine doesn’t plant genetically modified potatoes.)

Phase II of the feasibility study is about to begin. This 18-month project will research, among other things, the optimum location and technical specifications for a potato-based plastic production facility in Maine.

We will keep you informed on the progress of this project in future editions of TerraTEXT.

### 2. Manufactured Using Increasingly Sustainable Manufacturing Processes

Terratex criterion #1 is focused on fiber content. Criterion #2 zeroes in on the environmental impact of our production processes. We are continually investigating and implementing process improvements that will further reduce the environmental impact of our operations ... until we reach zero.

Measurement is a vital part of our efforts, because it helps us monitor our progress and direct further improvements. We also share the results with our customers, colleagues and even competitors, empowering them to make more informed choices about sustainability – and hopefully, inspiring them to make sustainability a priority in their operations.

### TerraCHECK™

Dyes and chemicals account for just 1% of the total content of our fabrics and products. Yet the Terratex LCA confirmed that even the smallest elements of our process could 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 TerraCHECK to guide us in our task. TerraCHECK is a rigorous, systematic method for evaluating all the ingredients in all the materials we use to manufacture our fabrics and products.

TerraCHECK mandates that we break down each material into its simplest form and screen it against the best, most current scientific information available. To do this, we require our suppliers to provide us with all the ingredients contained in their products. This detailed and confidential information goes far beyond government requirements for disclosure.

Many of our current fabrics are made in accordance with TerraCHECK, and we are using the system to help drive future development. Customers can specify these products secure in the knowledge they contain no compounds currently considered harmful to human health or the environment.

## Green Power

Electricity generation is one of the leading causes of industrial air pollution in the U.S. Most electricity comes from coal, nuclear and other non-renewable power plants. Producing energy from these resources takes a severe toll on our environment, polluting our air, land and water, and contributing to global warming.

Renewable energy sources (wind, solar electric, geothermal, biomass, and small- and low-impact hydro) can be used to produce electricity with fewer environmental impacts. Today, approximately 20% of True's energy usage comes from renewable sources. As advocates of market-based solutions to environmental challenges, True has purchased "green tags" (a.k.a. Renewable Energy Certificates) from wind farms in the United States. This purchase increases the amount of clean, renewable energy available to the nation.

Our purchase means that 3.2 million kilowatts of energy we draw from the nation's power grid will be replaced by wind energy. The EPA says this will save approximately 6.3 million pounds of carbon dioxide emissions – equivalent to taking 623 cars off the road each year.

Look for the Green-e logo on select Terratex swatch cards and memo tags – it signifies that 100% of the electricity used to make these products has been matched with Renewable Energy Certificates. Which means that these Terratex-brand fabrics meet the environmental and consumer protection standards established by the non-profit Center for Resource Solutions.



Purchasing products with the Green-e logo – such as Terratex – increases the nation's supply of renewable energy with wind power.

Purchasing products with the Green-e logo – such as Terratex – increases the nation's supply of renewable energy with wind power.

## 3. Made to Meet/Exceed Industry Standards for Quality and Performance

Terratex criterion #3 recognizes that sustainability must be married with commercial viability. We will not ask the marketplace to compromise on standards just so we can meet our sustainability goals.

The Terratex line more than lives up to our rich legacy of textile excellence. It offers a broad range of beautiful choices in classic and contemporary colors and patterns that inspire our customers and enrich the lives of end users.

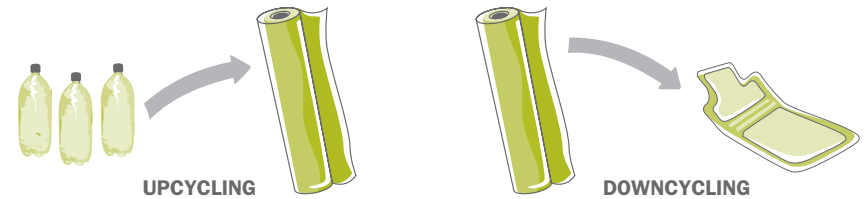
Each selection meets or exceeds all ACT performance standards, including flame resistance, colorfastness, pilling, breaking strength, seam strength and abrasion. The best evidence that the brand satisfies industry quality and performance mandates is its widespread use by leading contract furniture manufacturers.

## 4. Recyclable/Compostable

The final Terratex criterion focuses on what happens to our fabrics once they reach the end of their useful lives. All Terratex-classified polyester fabrics can be recycled; all bio-based fabrics can be recycled or composted.

### ReSKU®

All recycling is not created equal. In a closed loop economy, the objective is to recycle product into new products that have equal or greater functional and economic value; equal value = recycling; greater value = upcycling, lesser value = downcycling.



Using waste PET plastic from soda bottles to create Terratex-classified fabrics is an excellent example of upcycling. Turning discarded fabric into carpet padding is an example of downcycling. Downcycling is better than landfill or incineration, but it does not "close the loop." True is committed to developing closed loop options for both process scrap and "end-of-first-life" textile waste. To this end, we recently commercialized our ReSKU product reclamation program.

The goal of ReSKU is two-fold: 1) to identify high-value product opportunities for reclaimed waste and 2) to expand the infrastructure necessary to reintroduce the waste materials into the supply chain. The program recognizes that various qualities of waste exist in the marketplace — ranging from relatively high-value "cutting-room scrap," to textiles that have been returned from their first use in the marketplace, to materials with mixed fiber or post treatments.

Each of these qualities requires a different closed loop product solution. True is developing products and processes to effectively manage these differentiated waste streams. At this point, we have commercialized a molded polyurethane foam replacement product as well as products for acoustical application.

We are building a reclamation infrastructure and "supply chain" commensurate with the demand for raw materials created by sales of the ReSKU products. Downcycling – the current path for the majority of fiber, yarn and fabric waste – will diminish as the ReSKU program expands, and more materials are recycled or upcycled.

# The Terratex Life Cycle Assessment:

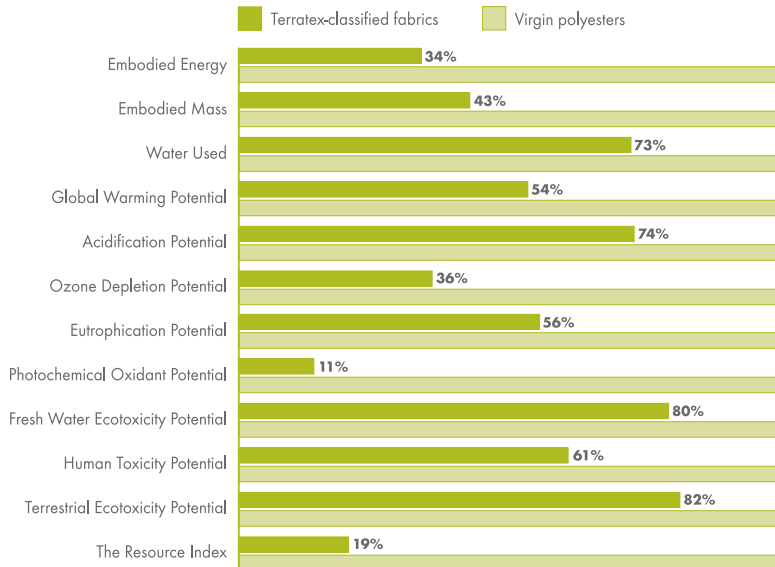
## Measuring Overall Impact

The Terratex criteria focus on individual sustainability attributes. But how do we measure the cumulative effect of our efforts across all four categories?

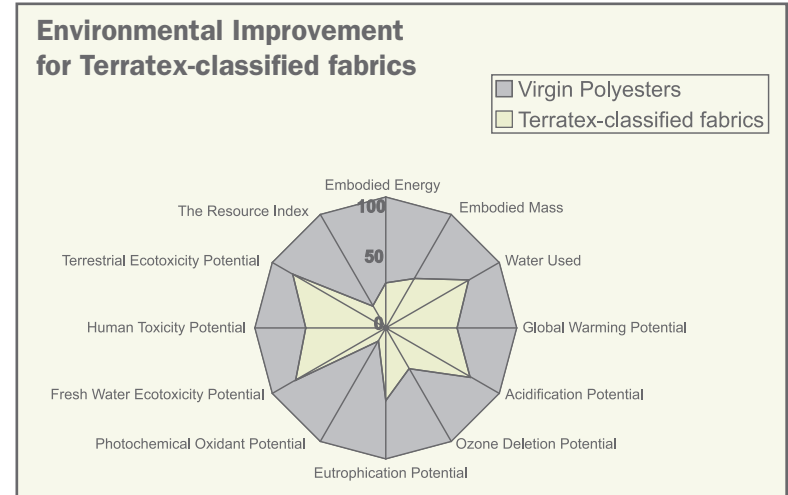
Life Cycle Assessment is the primary tool we use to measure the impacts of our manufacturing processes. It reflects “the sum of all parts” of Terratex.

We performed an LCA on Terratex -classified fabric made with recycled polyester and a second LCA on the same fabric made with virgin polyester. Then we compared the results.

The study was peer reviewed by an independent third party to ensure that the methodology was unbiased, thorough and scientifically sound. The results confirmed that Terratex-classified fabrics have a significantly reduced environmental impact compared to fabrics made with virgin polyesters.



LCA is not just a measurement tool. It’s also a design tool. We use the Terratex LCA to tell us where impacts are coming from throughout the Terratex life cycle. LCA informs the choices available to us. It helps us qualify the design choices we make. It helps us define “increasingly sustainable.”



Viewing data in this spider graph format illustrates the reduced environmental footprint of Terratex product.

# Green Glossary

What you need to know to speak the language of sustainability.

## Chapter 3: Measuring Success

What gets measured gets managed. In addition to subjecting our products and processes to independent measurements – like LCAs – we’ve developed our own internal methods for monitoring our performance and tracking our progress. They help ensure that things do indeed get done.

### Monitoring Metabolism

We track all the materials and resources that go into making our fabrics, from raw materials to energy to water to greenhouse gas emissions. This includes both component and process factors, which together make up our “metabolism.”

We compile and report this data on a monthly basis to help us identify where and how we can make improvements.

### Watching Waste

In 1995, we launched a formal program to identify, measure and eliminate waste. Associates throughout the company work in teams to discover ways to reduce waste that are unique to their facilities, departments and functions. We developed a metric to measure progress toward our “Zero Waste” sustainability goal.

This program has generated significant savings – thanks to the valuable suggestions associates have contributed to improve the efficiency of our equipment and processes.

### Recording the Journey

We carefully measure and document our efforts and progress on “marker posts” 2–7 with the intent of educating our associates about sustainability and helping them discover things they can do to work more sustainably. We award points for the successful completion of activities that fall under these categories:

- Environmental Management Systems
- Quality Management Systems
- Sustainability Awareness Education
- Outreach
- Employee Safety and Education
- Resource Efficient Transportation
- Metrics and Indicators
- Eco-Efficiency

This program is a key component of our Sustainability Metrics because it enables us to benchmark, establish goals and track our progress.

### Antimicrobial Preservative

A natural or synthetically derived chemical additive incorporated into or onto product surfaces to prevent microbial growth, odors and stains.

### Bio-based Product

A product (other than food or feed) that is produced from renewable agricultural (plant, animal and marine) or forestry materials.

### Biodegradable

Capable of decomposing in nature within a reasonably short period of time.

### Biological Contaminants

Agents derived from living organisms (e.g., viruses, bacteria, fungi, and mammal and bird antigens) that can be inhaled and can exacerbate many types of health effects including allergic reactions, respiratory disorders, hypersensitivity diseases and infectious diseases. Also referred to as “microbiologicals” or “microbials”.

### Biomass

Wood-based materials, agricultural crops, landfill gas, animal and other organic waste. When used as an energy source, biomass is considered to be a source of renewable energy.

### Biomimicry

The study of nature and imitation of nature’s forms. The process of learning from and then emulating life’s genius.

### Building Related Illness (BRI)

Diagnosable illness with symptoms that can be identified and with a cause that can be directly attributed to airborne building pollutants (e.g. Legionnaire’s Disease, hypersensitivity pneumonitis)

### Carbon Dioxide (CO2)

A colorless, odorless gas, formed naturally by

decomposition, combustion, breathing, etc. CO2 contributes to global warming.

### Chlorofluorocarbon (CFC)

Class of volatile, non-reactive, non-corrosive, non-flammable and easily liquefied gases, typically used in refrigeration and believed to be responsible for the deterioration of the stratospheric ozone.

### Climate Change

See “Global Warming Potential (GWP)”

### Closed Loop Recycling

See “Recycling”

### “Cradle-to-cradle”

A term used to describe a material or product that is recycled into a new or similar product at the end of its intended life.

### “Cradle-to-grave”

A term used to describe a material or product that is disposed (landfill, incineration, etc) of at the end of its intended life.

### Design for the Environment (DfE)

A concept or philosophy applied to the design process that advocates the reduction of environmental and human health impacts through materials selection and design strategies.

### Downcycling

See “Recycling”

### Ecological Footprint

The resulting impacts on the environment based on the choices we make (i.e., raw materials selection, energy selection, transportation, etc).

### Ecosystem

The interaction of organisms from the natural community with one another and their environment to sustain one another.

## **Embodied Energy**

Is a combination of the energy required for the process to make a product and the molecular energy inherent in the product's material content.

## **Emission**

The release of any gas, particle or vapor into the environment.

## **Environmental Cost**

The monetary impact from the negative environmental effects resulting from the choices we make. Also see "Ecological Footprint."

## **Environmental Management Systems**

**(EMS)** Series of activities to monitor and manage the environmental impacts of manufacturing activities. (Example: ISO 14001)

## **Environmental Protection Agency (EPA)**

An independent executive agency of the federal government, established in 1970, responsible for the formulation and enforcement of regulations governing the release of pollutants, to protect public health and the environment.

## **Environmentally Friendly**

A generic statement often used to designate a product or process that has a reduced ecological footprint when compared to other products/processes.

## **Environmentally Preferable**

Products, services or systems that have a lesser or reduced effect on human health and the environment when compared with competing products, services or systems that serve the same purpose.

## **Fluorocarbon**

Nonflammable, heat-stable hydrocarbon liquid or gas, in which some or all hydrogen atoms have been replaced by fluorine atoms. As with CFC's, fluorocarbons, traditionally used as propellants (spray cans), are classified as ozone-depleting substances.

## **Fly Ash**

Fine, noncombustible particulate primarily resulting from the combustion of coal in furnaces and kilns. Often used as a filler material in concrete to displace virgin raw materials.

## **Fossil Fuel**

Any petroleum-based fuel source (gasoline, natural gas, fuel oil, etc).

## **Fungi**

Typically filamentous, eukaryotic, non-chlorophyllic microorganisms. Fungi grow on dead or dying organic matter and may also grow on some building materials where excess moisture is present. Fungi can cause pungent odors, unsightly stains, and premature biodeterioration of interior furnishings.

## **Global Warming Potential (GWP)**

This is the impact of greenhouse gas emissions which contribute to the 'greenhouse effect.' Elevated concentrations of greenhouse gases contribute to global warming and increased climate variability. Also referred to as Climate Change.

## **Greenhouse Effect**

Greenhouse gases trap heat inside the atmosphere, warming the Earth's surface.

## **Greenhouse Gases (GHG)**

Gases which contribute to the greenhouse effect. These include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), etc.

## **Green Tag**

A green tag, or Renewable Energy Certificate (REC), represents the environmental attributes created when electricity is generated using renewable resources instead of fossil fuels such as coal, oil and natural gas. RECs can be sold separately from their associated electricity and enable customers to 'green' the electricity they consume from their retail power supplier(s).

## **Indoor Air Quality (IAQ)**

Acceptable IAQ is air in which there are no known contaminants at harmful concentrations as determined by cognizant authorities and with which a substantial majority (80 percent or more) of the people exposed do not express dissatisfaction.

## **Industrial Ecology**

An approach to the design of industrial products and processes that evaluates such activities through the dual perspectives of product competitiveness and environmental interactions.

## **LEED® (Leadership in Energy and Environmental Design Green Building Rating System™)**

A series of building rating products developed by the U.S. Green Building Council (USGBC) to provide a standard for what constitutes a "green building" or "high performance" building. The various LEED products are used as design guidelines and third-party certification tools, aiming to improve occupant well-being, environmental performance and economic returns of buildings used to establish and innovative practices, standards and technologies. The collection of LEED products includes LEED New Construction (NC) for newly constructed buildings, LEED Commercial Interiors (CI) for tenant build-outs, LEED Existing Buildings (EB) for existing building operations and for re-certification of already certified buildings, and LEED Core and Shell (CS). An effort is also underway to develop LEED for Homes.

## **Life Cycle Assessment**

A compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product or system throughout its life cycle.

## **Material Safety Data Sheet (MSDS)**

A compilation of information required under the OSHA hazard communication standard, including a listing of hazardous chemicals, health and physical hazards, exposure limits and handling precautions.

## **Nonrenewable Energy**

Sources of energy that cannot be replaced in a reasonable period of time. Fossil fuels (coal, petroleum, natural gas) are examples of nonrenewable energy sources.

## **Offsets**

Greenhouse gas reduction activities undertaken to compensate for emissions elsewhere.

## **Particulate**

Fine solid particles of dust, spore, pollen, dander, skin flakes, mite allergens, cell debris, mold, mildew, mineral fibers or solids escaping from combustion processes that are small enough to become suspended in the air, and in some cases, small enough to be inhaled.

## **Photovoltaic Cells**

Solid-state devices (typically made from silicon) that directly convert sunlight to electricity.

## **Recycling**

The series of activities, including collection, separation, and processing, by which materials are recovered from the waste stream for use as raw materials in the manufacture of new products.

## **Recyclable**

A designation for products or materials that are capable of being recovered from, or otherwise diverted from waste streams for recycling.

## **Closed-loop Recycling**

The process of recycling in such a way that the components of the original product are reclaimed or utilized into similar products without the process of downcycling.

## **Downcycling**

The process of recycling in such a way that new products are of lesser economic value. An example would be turning nylon face fiber into park benches.

# Green Glossary continued

## **Upcycling**

The process of recycling in such a way that new products are of higher economic value. Example: using waste PET (plastic from soda bottles) to create Terratex® fabric.

## **Recycled Content**

Refers to the percentage of the total weight of recycled materials in a product.

## **Post-consumer Recycled Content**

Material that has been recovered after its intended use as consumer product. Examples include reclaimed soda bottles.

## **Pre-consumer Recycled Content**

Material that has been recovered from the manufacturing waste stream before it has served its intended purpose.

## **Renewable Energy**

Energy derived from sources which are regenerative or recurring. Examples include wind energy, hydro, geothermal, or wave action.

## **Renewable Resources**

A resource that can be replenished at a rate equal to, or greater than its rate of depletion. Examples of renewable resources include corn (for PLA products), trees, soy-based products, etc.

## **Sick Building Syndrome (SBS)**

A term used to describe situations in which building occupants experience acute health and/or comfort effects that appear to be linked to time spent in a particular building, but where no specific illness or cause can be identified. Symptoms typically appear upon entering the building and disappear upon leaving the building in affected occupants. These buildings are also often defined as “problem buildings.”

## **Sustainability**

“Humanity has the ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.” (World Commission on Environment and Development, Brundtland Commission, “Our Common Future”) “Leave the world better than you found it, take no more than you need, try not to harm life or the environment, make amends if you do.” (Paul Hawken, The Ecology of Commerce, 1993, p. 139).

## **Upcycling**

See “Recycling”

## **Volatile Organic Compounds (VOCs)**

Compounds that evaporate from many housekeeping, maintenance and building products made with organic chemicals. These compounds may be released from the products both in use, and in storage. In sufficient quantities, VOCs can cause irritation and some are carcinogenic and are suspected of causing or exacerbating acute and chronic diseases. The health effects of VOCs at levels found typically in commercial indoor environments are still not completely known and continue to be a point for further study.

## **Waste-to-Energy**

Burning of waste to generate steam, heat or electricity.

# TerraTEXT™ 101

Our Journey Toward Sustainability

