# SPEC FURNITURE

*AN ENVIRONMENTAL LEADER*

In this document you will find:



## WHO IS SPEC?

Spec Furniture is a privately held North American Manufacturer of contract seating and tables, directed primarily to the healthcare and institutional marketplace. The company was founded in 1991 and continues to prosper with solid growth and the development of unique customer driven designs. The company is ISO 9001 (Quality Management System), ISO 14001 (Environmental Management System), and OHSAS 18001 (Health & Safety Management System) Certified.

Spec has a network of independent sales representatives throughout North America, and is a major supplier to GSA (US Government). Our distribution network is comprised of leading furniture dealers. Spec is an open line, which assures wide distribution, and competitive pricing.

## SUSTAINABILITY

Spec began looking for meaningful ways to implement a sustainable program in earnest in 2006. The goal we were aiming for was to meet the needs of today without compromising the ability of future generations to meet their own needs. We came to the conclusion that aligning with BIFMA (Business and Institutional Furniture Manufacturers Association) and their Furniture Sustainability Standard, known as level®, provided us with the tools and administrative controls to minimize our environmental footprint and take the next steps towards sustainability.

BIFMA's certification program, level®is the benchmark standard for business and institutional furniture — like LEED is for buildings. It addresses all three aspects of sustainability (environmental, economic and social) and includes criteria for evaluating materials, energy and atmosphere, human and ecosystem health, and social responsibility.

By adopting these voluntary standards, we have become a major environmental player and achieved this high level certification normally only attainable by the largest manufacturers in the industry.

## COMMITMENT

Spec is committed to:

- Continuously improving environmental performance through:
    - the use of recycling and recycled products
    - minimizing waste and encouraging the use of bio-degradable products
    - efficiently using water, energy and transportation
    - using materials from sustainable and renewable resources
    - minimizing the use of solvents and other harmful materials
    - preserving the environment in and around our facilities and within our community
- Compliance with environmental legislation as a minimum level of performance.
- The education and training of our employees in environmental issues and the environmental effects of their activities.
- Monitoring our progress and reviewing our environmental performance on a regular basis.
- Encouraging our customers and suppliers to use products and services in an environmentally-sensitive way

## LEVEL® CERTIFIED

Spec products are level® 3 and level® 2 certified. The certification was conducted by an independent, third party audit firm to conform to the BIFMA e3 Furniture Sustainability Standard. level® 2 goes far beyond indoor air quality and takes into account how a product is sustainable from multiple perspectives, such as a company's social actions, energy usage, material selection and human and ecosystem impacts. level® 3 takes the standard further within aforementioned categories conforming to more a stringent sustainability criteria.

BIFMA International is the recognized leader in developing standards for the North American office and institutional furniture industry. level® provides customers with an open and transparent means of evaluating the environmental and social impacts of furniture products for the built environment. level® is a multi-attribute, sustainability standard that takes into account a company's social actions, energy usage, material selection and human and ecosystem health impacts. It addresses how a product is sustainable from multiple perspectives.

## LEED CREDITS

The USGBC (US Green Building Council) recently announced that a new Pilot Credit recognizes the level certification program under LEED Pilot Credit 43: MR - Certified Products.

LEED Pilot Credits facilitate the introduction of new and innovative credits to LEED. According to USGBC, the intent of Pilot Credit 43 is to increase the use of products and materials with life cycles, ingredients, and attributes understood and optimized to improve overall environmental, economic and social performance. Level is one of several non-structural product and materials certifications outlined in Pilot Credit 43. The weighted value (cost) of the qualified certified products must be at least 10% of the total value of all nonT-structural materials and products to earn the one credit point that is available under Pilot Credit 43.

As of August 11, 2006 the BIFMA FES (Furniture Emissions Standard, found within BIFMA level®) is recognized by LEED as equivalent to GREENGUARD. Spec has chosen to test its products to the BIFMA FES standards.

**If you are working on a LEED project, Spec has resources to help you. Our certified LEED AP designer can work with you and help you make decisions on how to achieve the most LEED credits possible. Below are some of the credits you would be eligible for by specifying Spec products:**

- Fully welded steel bases and chair frames are made from 80% recycled steel. Spec's tables and chairs can contribute to **LEED credit MRc 4: Recycled Content.**
- Nu-Green is used in all Table products and is made from 100% post-industrial recycled content. This makes our tables eligible for **LEED credit MRc 4: Recycled Content.**
- Thanks to bio-based foam technology, all Spec Public Seating products can contribute for **LEED credit MRc6: Rapidly Renewable Materials.**
- All of Spec's products meet the BIFMA Furniture Emissions Standards making them eligible for **LEED CI EQ 4.5: Low Emitting Materials, Systems Furniture and Seating.** As of August 11, 2006 the BIFMA FES (Furniture Emissions Standard) is recognized by LEED as equivalent to GREENGUARD. Spec has chosen to test its products to BIFMA FES standards.
- Spec's Tables and Seating are designed for easy disassembly, and for easy refurbishing, making them eligible for **LEED credit MRc3: Materials Reuse.**
- Over 90% of packaging used to ship our products can be recycled, making them eligible for **LEED credit MRc2:Construction Waste Management.**
- Spec's products can contribute to achieving LEED credit**MRc5: Regional Materials** if your project is within 500 miles by truck or 1500 miles by train from our factory.

There are many factors that contribute to a project's ability to achieve LEED credits. Spec cannot control other products being specified on any given LEED project. Information given refers to Spec products only. We cannot give any guarantee that LEED credits will be awarded when combined with other manufacturers' products.

## MATERIALS

### FOAM

Spec uses new foam technology in all our seating products which displaces up to 25% of the existing non-renewable petroleum with a sustainable plant based substitute. This technology does not change the physical properties or comfort of the foam. It does however reduce Spec's footprint and focus on the use of renewable, sustainable materials. It is our mandate to increase the percentage of renewable content as advancement in the technology will allow.

## STEEL

Steel is 100% post consumer recyclable and new steel used by Spec contains over 80% recycled steel.

## ALUMINUM

Aluminum is 100% recyclable and the aluminum used by Spec contains over 70% recycled content.

## TABLE CORE

All Spec tables are manufactured with NAUF Particle Board - a core made of 100% recycled wood fiber with no added urea formaldehyde. The core is manufactured in an FSC certified facility, exceeds CARB standards and helps achieve LEED credits.

## FABRICS

Spec seating can be upholstered in any choice of fabric from any fabric manufacturer. Most fabric manufacturers have a selection of textiles with reduced environmental impact available.

## LAMINATES

Spec laminate tops are available in any standard Arborite, Formica, Nevamar, Pionite and Wilsonart matte finish offerings. Environmental information is available on each of their websites.

## 2MM BIO EDGE

At NeoCon 2011, Spec introduced its new bio edge, another industry first. This 2mm edge has a bio-based content of 88% that is made from rapidly renewable corn. The portion of the corn used is a waste bi-product and therefore not taken from food stock. It contains no hazardous chemicals and emits no toxic VOC's and is recyclable. Spec is introducing more edge profiles in this material in an effort to move away from PVC edge banding, which off gasses.

This new 2MM edge may contribute to LEED credit MR-CR6 Rapidly Renewable Materials. 2mm edge has the impact durability of PVC with a profile similar to self edge.

## LITERATURE

All of our literature and product catalogs are printed in an FSC™ certified facility with post consumer recycled content using water based coatings.

### PACKAGING

Cardboard packaging used by Spec is made up of 97% pre-consumer recycled fiber and a water-based environmentally friendly plant based ink imprint on all cartons.

## PROCESSES

### UV FINISH LINE

Spec's UV finish line uses water based stains and a water based UV top coat to create a finish that has dramatically lower emissions than standard solvent based finishes.

This leading edge UV tunnel is very unique in that it allows Spec to finish complex shapes like wood arms and seat backs not normally curable by other UV tunnels. The UV curing process involves the use of high intensity Ultra-violet lights to cure the finish.

### RECLAIMED PAINT SYSTEM IMPLEMENTED

Overspray powder from our paint line is collected and mixed to create a dark grey color which is used to paint unseen parts. This reduces the amount of waste that goes to landfill. Spec's powder coat finish is 99.9% VOC-free.

### GLUES/ADHESIVES

Hot-melt glues (hot melts) are used for Spec seating products. Hot melts are safe to handle, non-volatile, do not pollute the air and do not require special disposal.

Water based PVA glues are used for Spec laminated tables. PVA does not emit any harmful fumes, and is not hazardous to touch.

### STEEL FINISHING

Frames are finished in a durable powder coat finish that is 99.9% VOC free.

### FABRIC ORDERING REDUCTION

In November of 2010, a special team was created to reduce the amount of fabric Spec orders. Although most of the usable scrap fabric is diverted from landfill, it was identified as a huge cost savings. From January to the end of April, Spec has saved over $30,000.00.

## USING JUST THE RIGHT AMOUNT OF LAMINATE

Spec has launched a new highly efficient system for estimating and ordering laminate. Drawings are created to maximize the laminate yield and allow us to order exactly what is needed. These drawings are also used to show employees how to cut the laminate, further minimizing waste. Cut-offs of a usable size are tagged and returned to inventory. We expect to reduce waste going to landfill by using this system.

## SHIPPING

Spec ships blanket wrapped upon request, when a complete trailer is being shipped to one location. No cardboard packaging means no waste. Blankets are returned to Spec.

## ENERGY CONSERVATION

- Motion and noise sensors to turn off lights when not needed.
- Spec implemented a project which replaced all of the lighting in our office and factory with energy efficient bulbs that reduced the amount of electricity required by 60% and at the same time produce 12% more light.
- The retrofit of the Powder Coating Paintline was finished at the end of March 2011 and in February 2012; we saw an 18% reduction on our gas bill since the retrofit.
- We replaced our entire roof, increasing the insulation R value from R5 to R30. This has reduced our natural gas consumption. We also changed it to a white reflective roof, reducing the need for air conditioning, therefore reducing our electricity consumption.
- We improved the efficiency of our powder coat line by adding a chamber to our dry off oven and bake oven, which helps keep the heat in, thus reducing the amount of natural gas we consume. We saw a 3 year return on investment.
- Spec gives scrap fabric to two fashion companies, Echoes in the Attic and Mari Cla Ro. In return, these companies donate to local charities. They create hand-made handbags, eco-consciously created from reclaimed fabrics. They have helped Spec divert over 12 Tons of fabric from landfill.
- Looking to reduce our energy consumption, Spec has replaced our 60 HP Air Compressor with a 30HP Air Compressor. This initiative has reduced our electricity consumption for generating compressed by air by 50%, and has reduced overall electricity consumption for the entire operation by 6%.

# FAQ

## WHAT IS LEED?

LEED stands for The Leadership in Energy and Environmental Design. It is a nationally recognized rating system for the design, construction, and operation of high performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' environmental performance.

## WHAT DOES LEED PROMOTE?

LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

## WHAT IS GREENGUARD™?

The GREENGUARD Environmental Institute was founded in 2001 as a “third-party product certification program for emissions testing". It is an independent, non-profit organization that has established voluntary acceptable indoor air standards for indoor products, environments, and buildings.

Like BIFMA FES, GREENGUARD emissions testing has been accepted by the U.S. Green Building Council (USGBC) as achieving indoor air quality standards for the LEED rating system.

## WHAT IS BIFMA?

BIFMA is a membership based not-for-profit organization made up of furniture manufacturers, suppliers and associated agencies. BIFMA's mission is to lead, advocate, inform and develop standards for the North American office and institutional furniture industry.

BIFMA Furniture Emissions Standards (FES) have been developed within the testing standards of the American National Standard Institute (ANSI) to measure volatile organic compound (VOC) emissions of office furniture. The BIFMA FES standard has been accepted by the U.S. Green Building Council (USGBC) as achieving the required indoor air quality standards for the LEED rating system.

## WHAT IS ANSI?

ANSI is the American National Standards Institute. ANSI is a private non-profit organization that oversees the development of voluntary consensus standards for products, services, processes and systems. ANSI accredits standards that are developed by other standards organizations, government agencies, consumer groups, companies, and others. These standards ensure that the characteristics and performance of our products are consistent, that people use the same definitions and terms, and that the products are tested the same way.

## WHAT IS THE DIFFERENCE BETWEEN BIFMA AND GREENGUARD™ EMISSIONS TESTING?

BIFMA FES is an emissions test method for furniture products. GREENGUARD™ is a certification brand covering a variety of building products.

The testing protocols are similar and have been determined to be technically equivalent by the U.S. Green Building Council (USGBC) as meeting the standard required by the Indoor Air Quality section of the LEED rating system.

## WHY DID SPEC CHOOSE BIFMA OVER GREENGUARD™?

BIFMA is the recognized leader in developing standards for the North American office and institutional furniture industry. In addition to the BIFMA FES Indoor Air Quality testing, it has developed a Sustainability Standard which takes into account other sustainability issues in addition to Indoor Air Quality such as end of life management, water management, energy efficiency, energy conservation, environmental and health and safety requirements for our facilities, and the health and safety of our employees. This new Sustainability Standard goes far beyond GREENGUARD's focus, and we believe will soon become the new environmental standard by which all furniture manufacturers will be measured. Spec has committed to this Sustainability Standard and to continuously improve to become an environmental leader in the contract furniture industry.

## WHAT IS THE DIFFERENCE BETWEEN PRE- AND POST-CONSUMER RECYCLING?

“Post-consumer” refers to material that has been purchased, used by the final consumer, and then recycled. “Pre-consumer” refers to material that is generated during a manufacturing process, such as scraps from the cutting of envelopes. Instead of being disposed, the materials such as trimmings, damaged or obsolete products, or overruns are collected and incorporated into recycled products.

### WHAT IS SUSTAINABILITY AS IT PERTAINS TO FURNITURE?

Sustainability is a development strategy that "meets the needs of the present without compromising the ability of future generations to meet their own needs." It calls for a future-oriented perspective which integrates economic, environmental and social aspects into business strategies and decision making.

### WHAT IS GREENWASHING?

Greenwashing is a term used to describe the perception of consumers that they are being misled by a company regarding the environmental practices of the company or the environmental benefits of a product or service.

## COMMON TERMS & DEFINITIONS

### AIR POLLUTANT

Any substance in air that could, in high enough concentration, harm humans, animals, vegetation, or material.

### AIR POLLUTION

The presence of contaminants or pollutant substances in the air that interfere with human health or welfare, or produce other harmful environmental effects.

### BIFMA FES (FURNITURE EMISSIONS STANDARD)

As of August 11, 2006 the BIFMA FES (Furniture Emissions Standard) is recognized by LEED as equivalent to GREENGUARD. Spec has chosen to test its products to BIFMA FES standards.

### BIOBASED PRODUCT

A commercial or industrial product that utilizes biological products or renewable domestic agricultural or forestry materials.

### BIODEGRADABLE

Capable of decomposing by microorganisms under natural conditions and reduced to organic or inorganic molecules which can be further utilized by living systems.

### BIODIVERSITY

The number, variety, and variability of living organisms.

**BYPRODUCT**

Material, other than the principal product, generated as a consequence of an industrial process or as a breakdown product in a living system. A secondary and sometimes unexpected or unintended result. California Air Resource Board (CARB): The "clean air agency" in the government of California. The stated goals of CARB include attaining and maintaining healthy air quality; protecting the public from exposure to toxic air contaminants; and providing innovative approaches for complying with air pollution rules and regulations. Canadian Green Building Council (CaGBC) : The CaGBC was created in 2003 to further the expansion of green building in Canada. Prior to the formation of the Council, Canada had participated in the United States Green Building Council (USGBC) through British Columbia's membership in the USGBC's Cascadia Chapter. The Canadian Green Building Council is dedicated to promoting the LEED rating system.

**CARCINOGEN**

Any substance that can cause or aggravate cancer.

**CLEAN AIR ACT**

The US federal statute that regulates air emissions form area, stationary and mobile sources. This law authorizes the U.S. Environmental Protection Agency to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment.

**CLOSED LOOP**

A type of manufacturing process that utilizes a cyclical material flow in order to minimize waste.

**COMPOSTABLE**

Possessing the ability to break down into or otherwise become part of, usable compost (e.g. soil-conditioning material, mulch) in a safe and timely manner.

**CRADLE-TO-CRADLE**

A term used in life-cycle analysis to describe a material or product that is recycled into a new product at the end of its defined life.

**CRADLE-TO-GATE**

A term used to describe the encompassing life cycle stages of raw material extraction and conversion to a bulk form or a generic shape.

**DESIGN FOR DISASSEMBLY**

The design and engineering of a product so that it can be dismantled for easier maintenance, repair, recovery and reuse of components and materials.

**DESIGN FOR THE ENVIRONMENT (DFE)**

The systematic integration of environmental attributes into the design of products and processes. There are three unique characteristics of DFE:

The entire life-cycle is considered
Point of application is clearly in the product realization
Decisions are made using a set of values consistent with industrial ecology, integrative systems thinking or another framework

**ECOSYSTEM**

The interacting system of a biological community and its non-living environmental surroundings.

**ENVIRONMENT**

The sum of all external conditions affecting the life, development and survival of an organism.

**ENVIRONMENTAL ASPECT**

An element of an organization's activities, products or services that can interact with the environment.

**ENVIRONMENTAL MANAGEMENT SYSTEM (EMS)**

The part of a company's overall management system that includes organizational structure, planning activities, responsibilities, practices, procedures, processes, and resources for developing, implementing, achieving, reviewing, and maintaining the environmental policy.

**ENVIRONMENTAL POLICY**

A statement by the organization of its intentions and principles in relation to its overall environmental performance, which provides a framework for action and for the setting of its environmental objectives and targets.

**ENVIRONMENTAL PROTECTION AGENCY (EPA)**

The U.S. federal agency established in July of 1970 "to protect human health and to safeguard the natural environment — air, water, and land — upon which life depends"; works closely with other federal agencies, state and local governments and Indian tribes to develop and enforce regulations under existing environmental laws; provides leadership in the nation's environmental science, research, education and assessment efforts; and is responsible for researching and setting national standards for a variety of environmental programs and delegates to states and tribes; responsible for issuing permits, and monitoring and enforcing compliance. www.epa.gov

**ENVIRONMENTALLY FRIENDLY (ECO-FRIENDLY, GREEN)**

These terms are given to goods considered to inflict minimal or reduced harm on the environment. Labels declaring a product to be environmentally friendly are used across the globe to promote products, but there is no international standard, and many different labels.

**ENVIRONMENTALLY PREFERABLE**

Products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance or disposal of the product or service.

**GATE-TO-GATE**

A term used to describe the product fabrication and assembly of institutional furniture. For purposes of the assessment, the entry gate is the receiving dock of the first facility where basic materials used in the manufacture of the furniture (e.g. steel, particleboard, fabric, laminate, etc.) begins the conversion to furniture components. The end gate is the shipping dock where the ready-to-Install furniture is transported for distribution to the end user. The gate-to-gate assessment will include transportation of intermediate materials and components between facilities where more than one physical location is included in the manufacturing process.

**GREEN**

An adjective used to describe something that is perceived to be beneficial to the environment.

**GREENGUARD™**

A certification and labeling program for interior products and building materials in reference to indoor air quality.

**GREEN BUILDING**

The practice of increasing the efficiency with which buildings use resources — energy, water, and materials — while reducing building impacts on human health and the environment, through better, design, construction, operation, maintenance, and removal — the complete building life cycle.

**GREENHOUSE GAS (GHG)**

Certain gases (including water vapor, carbon dioxide, methane, nitrous oxide, and ozone and several classes of halogenated carbons that contain fluorine, chlorine and bromine) that allow solar radiation to reach Earth's surface and become absorbed, yet trap thermal radiation leaving the earth's surface. Outgoing thermal radiation absorbed by these gases heats the atmosphere. The atmosphere then emits thermal radiation both outward into space and downward to Earth, further warming the surface.

**HAZARDOUS AIR POLLUTANT**

Those pollutants that cause or may cause cancer, other serious health effects (such as reproductive effects or birth defects) or adverse environmental and ecological effects. The EPA is required to control 188 HAPs including dioxin; asbestos; toluene; metals such as cadmium, mercury, chromium and lead; benzene, which is found in gasoline; perchlorethlyene, which is emitted from some dry cleaning facilities; and methylene chloride, which is used as a solvent and paint stripper by a number of industries. Also known as toxic air pollutants. www.epa.gov

**HAZARDOUS MATERIAL**

Any material or substance, which if improperly handled or disposed of, can cause harm to the health and well-being of humans or the environment.

**HAZARDOUS WASTE**

Any waste that exhibits specific hazardous characteristics such as ignitability, corrosivity, reactivity or toxicity.

**HEAVY METAL**

Any metallic chemical element that has a relatively high density and is toxic at low concentrations. (Examples are mercury, cadmium, arsenic, chromium, thallium and lead). Semi-metallic elements (such as antimony, arsenic, selenium and tellurium) are often included in this classification.

**HYDROCHLOROFLUOROCARBON (HCFC)**

A compound that consists of hydrogen, chlorine, fluorine and carbon. The HCFCs are a class of replacements for CFCs. They contain chlorine and thus deplete stratospheric ozone ,but to a much lesser extent than CFCs. Production of HCFCs are currently being phased out of production. www.epa.gov

**HYDROFLUOROCARBON (HFC)**

A compound that consist of hydrogen, fluorine and carbon. The HFCs are a class of replacements for CFCs. Because they do not contain chlorine or bromine, they do not deplete the ozone layer. www.epa.gov

**INCIDENTAL PRESENCE**

The presence of a regulated metal (e.g., cadmium, lead, mercury, hexavalent chromium) as an unintended or undesired ingredient of a package or packaging component.

**INDOOR AIR POLLUTION**

Chemical, physical or biological contaminants in indoor air.

**ISO 9000**

A group of ISO standards and guidelines that relate to quality management systems. Currently includes three quality standards: ISO 9001: 2000 establishes requirements; ISO 9000: 2000 and ISO 9004: 2000 establish guidelines. All of these are process standards, not product standards. Compliance results in “ISO 9000 Certification."www.iso.ch

ISO 14000: A group of ISO standards and guidelines that address environmental issues. Includes standards for Environmental Management Systems (EMS) (ISO 14001), environmental and EMS auditing, environmental labeling, performance evaluation and life-cycle assessment. Compliance results in “ISO 14000 Certification."www.iso.ch

**LEED**

The Leadership in Energy and Environmental Design: LEED is a Green Building Rating System, developed by the U.S. Green Building Council (USGBC), providing a list of standards for environmentally sustainable construction. The rating system addresses six major areas:

Sustainable sites
Water efficiency
Energy and atmosphere
Materials and resources
Indoor environmental quality
Innovation and design process

Different LEED versions have varied scoring systems based on a set of required "prerequisites" and a variety of "credits" in the six major categories listed above. In LEED v2.2 for new construction and major renovations for commercial buildings there are 69 possible points and buildings can qualify for four levels of certification:

Certified - 26-32 points
Silver - 33-38 points
Gold - 39-51 points
Platinum - 52-69 points

LEED certification is obtained after submitting an application documenting compliance with the requirements of the rating system as well as paying registration and certification fees. Certification is granted solely by the Green Building Council responsible for issuing the LEED system used on the project.

**LIFE CYCLE**

The total impact of a system, function, product, or service from the extraction of raw materials through its end-of-life management.

**MATERIAL SAFETY DATA SHEET (MSDS)**

A document required by OSHA that contains information about hazardous chemicals in the workplace in order to insure the safety and health of the user at all stages of a material's manufacture, storage, use and disposal.

**NATIONAL AMBIENT AIR QUALITY STANDARDS (NAAQS)**

Air quality standards required by the Clean Air Act that monitor six pollutants, known as “criteria" pollutants, considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards: primary standards set limits to protect public health, including the health of “sensitive“ populations such as asthmatics, children and the elderly; and secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation and buildings. The EPA sets and monitors the levels for these standards. www.epa.gov

**NONRENEWABLE ENERGY**

Energy taken from finite resources that will eventually dwindle, becoming too expensive or too environmentally damaging to retrieve, as opposed to renewable energy sources, which "are naturally replenished in a relatively short period of time.

**OZONE**

A bluish gas that is harmful to breathe. Nearly 90% of the Earth's ozone is in the stratosphere and is referred to as the ozone layer. Ozone absorbs a band of ultraviolet radiation called UVB that is particularly harmful to living organisms. The ozone layer prevents most UVB from reaching the ground.

**POST-CONSUMERRECYCLED CONTENT**

The recycling of materials generated from residential and consumer waste for use in new or similar purposes, such as converting wastepaper from offices into corrugated boxes or soda bottles into polyester fiber.

**POST-INDUSTRIAL (PRE-CONSUMER) RECYCLED CONTENT**

Diverted from the waste stream during the manufacturing process. Excluded is reutilization of materials such as rework, regrind, or scrap generated in a process and capable of being reclaimed within the same process that generated it.

**POLLUTION**

This is generally, the presence of a substance in the environment that because of its chemical composition or quantity prevents the functioning of natural processes and produces undesirable environmental and health effects.

**POLYVINYL CHLORIDE (PVC)**

Synthetic thermoplastic polymer made from vinyl chloride. In addition to its stable physical properties, PVC has excellent transparency, chemical resistance, long-term stability, good weatherability, flow characteristics and stable electrical properties. However, its stability makes it nearly environmentally indestructible. PVC also releases hydrochloric acid and other toxic compounds when produced, used or burned.

**RECLAMATION**

The act of retrieving any material from a waste stream in order to save it from loss and restore to usefulness.

**RECOVERED MATERIAL**

Waste materials and byproducts that have been recovered or diverted from solid waste, but does not include materials and byproducts generated from, and commonly reused within, an original manufacturing process.

**RECYCLABLE**

Capable of minimizing waste generation by recovering and reprocessing usable products that might otherwise become waste.

**RECYCLE**

To minimize waste generation by recovering and reprocessing usable products that might otherwise become waste (e.g., aluminum cans, paper and bottles, etc.).

**RECYCLED-CONTENT MATERIALS**

Materials that have been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (post-industrial) or after consumer use (post-consumer).

**REMANUFACTURING**

Restoring products to usable condition by replacing or repairing parts as needed.

**RENEWABLE ENERGY**

Energy from a source that is replenishable and replenished on some reasonable time scale. Potential renewable energy sources include, but are not limited to wind, solar, heat from the earth's interior, oceans, rivers, and biomass.

**RENEWABLE MATERIAL**

A material that is replenishable and replenished on some reasonable time scale. Renewable material sources include, but are not limited to wood, grass fibers, plant-based plastics, and bio-based fuels.

**REUSABLE PACKAGING**

Packaging that has been conceived and designed to accomplish within its lifecycle a minimum number of trips or rotations, is refilled or used for the same purpose for which it was conceived, with or without the support of auxiliary products present on the market enabling the packaging to be refilled: such reused packaging will become packaging waste when no longer subject to reuse.

**SOCIAL RESPONSIBILITY (OR EQUITY)**

The identification of issues, the development of standards, and the implementation of programs that address corporate responsibility for the ethical treatment of employees, communities, and other stakeholders.

**SOLID WASTE**

Non-liquid, non-soluble materials from sources ranging from municipal garbage to industrial wastes that may contain complex and hazardous substances. Solid wastes also include sewage sludge, agricultural refuse, demolition wastes and mining residues. Technically, solid waste also refers to liquids and gases in containers.

**SUSTAINABLE**

Of, relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged.

**SUSTAINABLE DESIGN (ECO-DESIGN, GREEN DESIGN, ENVIRONMENTAL DESIGN)**

Sustainable design is an approach that attempts to reduce the overall environmental impact of a product. The aim of sustainable design is to produce products and facilities in a way that reduces use of non-renewable resources, minimizes environmental impact, and relates people with the natural environment. The growing focus on Sustainable design is a reaction to the global "environmental crisis", i.e., rapid growth of economic activity and human population, depletion of natural resources, damage to ecosystems and loss of biodiversity.

**SUSTAINABLE DEVELOPMENT**

That which meets the needs of the present generation without compromising the ability of future generations to meet their own needs (The United Nations Brundtland Commission, 1987).

**SUSTAINABLE PRACTICE**

A practice (such as manufacturing) that maintains a given condition without destroying or depleting natural resources.

**SUSTAINABLE PRODUCT**

A product that has no negative impact on natural ecosystems or resources. Sustainable Manufacturing: Manufacturing processes that have no negative impact on natural ecosystems or resources.

**SUSTAINABILITY**

The characteristic of a product, material or process to be sustainable.

**TOXIC**

Presenting an unreasonable risk of injury to human health or the environment.

**TOXIC WASTE**

If a threshold concentration of one of fourteen substances listed by RCRA is present in an extract of a waste stream, the entire waste stream is classified as toxic waste and is subject to regulation as a hazardous waste (under the RCRA definition, 40 CFR Part 261.24). The list contains several synthetic organic chemicals and toxic metals such as lead, chromium and mercury.

**TOXIC AIR POLLUTANT**

Poisonous substances in the air that come from natural sources (for example, radon gas from the ground) or from manmade sources (for example, chemical compounds given off by factory smokestacks) and can harm the environment or human health

**U.S. GREEN BUILDING COUNCIL**

A coalition of representatives from the building industry that promotes buildings that are environmentally responsible, profitable and are healthful places to live and work.www.usgbc.org

**UNIVERSAL HAZARDOUS WASTE (UHW)**

Certain hazardous, widely generated materials such as batteries, pesticides and thermostats. The EPA adopted the Universal Waste Rule (1993), which amended the Resource Conservation and Recovery Act (RCRA) regulations in order to allow for streamlined management of this category of hazardous wastes (58 FR 9346).

**VOLATILE ORGANIC COMPOUND (VOC)**

Any compound that contains carbon and becomes a gas at room temperature. VOC emissions are regulated because they contribute to smog formation. The most common sources of VOC emissions are from storage and use of liquid and gaseous fuels, the storage and use of solvents and the combustion of fuels and can include housekeeping and maintenance products and building and furnishing materials. In sufficient quantities VOC emissions can cause eye, nose, and throat irritations, headaches, dizziness, visual disorders, memory impairment; some are known animal carcinogens; some are suspected or known human carcinogens.

**WASTE**

Unwanted materials left over from a manufacturing process, or refuse from places of human or animal habitation.

**WASTE PREVENTION**

Any change in the design, manufacturing, purchase or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials.

**WASTE REDUCTION**

Preventing or decreasing the amount of waste being generated through waste prevention, recycling or purchasing recycled and environmentally preferable products.

## EXTEND THE LIFE OF YOUR FURNITURE

At Spec, we focus on making furniture that will last. This focus on sustainability not only benefits our customers by providing them with quality products, but it also benefits the environment by extending the life of our furniture, reducing the amount of furniture waste that goes to landfills. To ensure our products have an extended life, we have implemented a Design for the Environment (DfE) program that utilizes the latest sustainability guidelines. It is implemented at the Project Initiation stage of new product development and addresses the following key areas:

- Materials
- End of life management
- Energy and water management
- Air quality
- Life-cycle assessment
- Long useful life, ability to withstand repeated service, repair, maintenance, and re-assembly
- Easy refurbishing, replacement and reuse of components

Though Spec's furniture is designed and built to last, we know that all good things must come to an end. As styles change and daily wear & tear begins to show, you may be looking to replace your current products with upgraded styles or fabrics. To reduce your environmental impact, try extending the life of your Spec furniture using one of the options below to keep your products away from landfills!

### OPTION 1: REFURBISH

If your furniture is in need of an upgrade, try refurbishing what you already have! Spec designs its furniture to allow you to rework your existing products, reducing the amount of waste that goes into the landfill and lowering the cost of your upgrade. For example, you can remove chair seats & backs to upgrade the fabric, or repaint scratched table bases. Simply refer to the disassembly instructions on www.specfurniture.com.

### OPTION 2: DONATE

If your furniture is still in good condition, you can benefit your community by donating the items to local charities in organizations where they will put your products to good use. Not only will you avoid the cost of sending products to the landfill, but most organizations will give you a charitable tax receipt! Refer to our website for links to organizations that may be able to help you in your area.

**OPTION 3: RECYCLE**

Furniture that cannot be re-purposed or redistributed can be recycled as the material it is composed of still has value. For example, common materials such as steel and aluminum can be easily sent to scrap metal sites and often provide monetary return. Recycling ensures that additional materials do not enter the landfill. Refer to our website for links to organizations that may be able to help you in your area.

Refer to the disassembly instructions above to see which components of your furniture are recyclable and how much they weigh.

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