

ENVIRONMENTAL CONSIDERATIONS FROM PLACE TEXTILES

What does “green” mean?

What is an “environmentally responsible” fabric?

“Green” within the context of environmentally responsible fabrics means different things to different people. Sorting out the considerations and making a good choice is challenging. What are your parameters and what is the most effective way to “make a difference”? Are you simply looking for something that is environmentally responsible? Perhaps you want a fabric that is made from recycled fiber. Maybe you are looking for a fabric that is produced from rapidly renewable resources. You might think an organic fabric is the best bet. Perhaps a fabric that is truly sustainable is the answer. Does your project require specific certification? What DOES all this mean?

Environmentally Responsible – This broad category can include a variety of fiber and fabric types including those woven from natural fibers as well as those produced from synthetic yarns. In fact, many countries have implemented strict guidelines to ensure that fabric production does not harm the environment. The management of water and waste along with the regulation of dye stuffs and finishing compounds has had a significant effect on the impact modern fabric production has on the environment.

Natural Fibers – Many people assume natural fibers are automatically “green”. While sheep, goats, flax and trees do thrive naturally in the environment, the way in which these fibers are turned into yarn and woven into fabric contributes to their “green” efficacy. Energy, water and the possible chemicals and pesticides used in processing natural fibers need to be taken into account. The fact that natural fibers do not typically emit VOC’s (volatile organic compounds) is a significant plus. Caring for natural fibers usually requires soap and water as opposed to solvents or chemical solutions – another important consideration.

Rapidly Renewable Resources – Natural, Man-Made Fibers - Viscose (rayon) is an example of a fiber produced from natural cellulosic fibers and turned into yarn through a complex manufacturing process. The process by which the plant fibers are broken down and ultimately made into yarn will determine their impact on the environment. Because these raw materials grow quickly and easily, they are considered rapidly renewable. Rayon from bamboo falls into this category as do most viscose yarns which are produced from fast-growing trees. However, using a rapidly renewable fiber does not guarantee being “green”. All the steps required to process the fiber must be taken into account when determining the environmental responsibility.

Recycled Synthetic Fibers – There are many fabrics in the market that are woven from recycled fibers. These recycled fibers are typically polyester and can be made from pre- or post-consumer recycled waste such as plastic water bottles. Using recycled waste to make yarn is a viable way to address our cultural tendency toward excess. However, the natural resources required to turn these plastic cast-offs into yarn must be considered carefully in the debate about environmental responsibility. Also, it does not automatically follow that fabrics made from recycled fibers are recyclable. Recycling these recycled fibers will depend on the type of backing used when the fabric is finished, the adhesive that may be a part of the upholstery process and the reclamation programs that are available.

Organic – There are not many truly organic fabrics available for use in interiors. The fiber in a fabric might be certified organic (such as organic cotton which is grown without pesticides) but the manufacturing processes used to make the fabric must also adhere to

organic standards. This is nearly impossible unless the fabric is hand woven. While the fiber used in a fabric may be organic, the conditions under which that fabric is produced also contribute to its environmental foot print.

Sustainable – A sustainable fabric means that from the very beginning of the production cycle, to when it begins again, in every step along the way, the fabric follows standards that are 100% environmentally responsible. The Climatex™ brand is an example of this. Using a certified sustainable fabric insures that every process in producing that fabric has been measured against strict criteria of evaluation. This is generally referred to as “lifecycle analysis”. Sustainable fabrics take into account where the fiber comes from, the processing of the fiber into yarn, the type of dye-stuffs used, the energy and water required to finish the fabric and the energy it takes to get it to its destination. Sustainable fabrics also measure the viability of a fabric after its life as an upholstery. A truly sustainable fabric such as Climatex™ can ultimately end up in the compost bin where the cycle can begin again.

Specific Certification – There are agencies and organizations that have defined environmental responsibility with protocols they have developed through extensive scientific research. MBDC has registered the term Cradle to Cradle® and has defined a certification process by which fabrics and other products can be certified to be environmentally responsible in their manufacturing processes. The Oeko-Tex Standard 100 is a globally uniform testing standard and certification system for textile raw materials as well as textiles end products and insures that products carrying the trademark are free of harmful substances. Oeko-Tex Standard 1000 insures environmentally responsible production sites. LEED – An acronym for “Leadership in Energy and Environmental Design” is a third party certification process that promotes a “whole building” approach to using environmentally responsible products and practices. Upholstery fabrics cannot carry a LEED certification on their own but they may contribute to obtaining points toward LEED certification.

It’s the BIG Picture – Ultimately it is the big picture that must be considered when trying to evaluate a fabric for its environmental responsibility and “green” efficacy. As designers and consumers, we care about the “green” issue and want there to be one simple, easy-to-implement solution. Unfortunately that is not the case. Manufacturing yarns and fabrics responsibly is a multi-faceted and complex process. The same goes for producing the chair or sofa the fabric will upholster. By taking into account the different considerations for environmental responsibility, we can attempt to make intelligent decisions that will contribute, each in their way, to a solution.

Another Consideration – Using quality fabrics that have reasonable longevity is one way to parse the “green” debate. Selecting fabrics that are easy to clean and care for without harsh chemicals is another way to be mindful of environmental issues. Avoiding fabrics with multiple topical treatments is another consideration. Keep in mind that fabric production in this country is strictly legislated for environmental issues. In Europe environmental controls surrounding fabric production tend to be even more demanding.

A Final Idea – Another way we can all contribute to environmental responsibility is to use a cloth shopping bag for every single purchase. We can resist excessive packaging and turn off the lights and the electronics when not in use. These behavior modifications, while individually insignificant, can make a big difference when put into practice by all of us.