



Outdoor Industry Association Eco Working Group Materials Guidelines for the Eco Index™

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Scope and Purpose

The Eco Index™ is an outdoor industry environmental assessment tool intended to be used by companies to incorporate environmental considerations into product design and to manage their supply chains in a way that supports their environmental goals. The Eco Index contains guidelines, indicators and metrics.

This document encompasses guidelines for sustainable materials selection and is a component of the larger index.

These Materials Guidelines are qualitative principles and management practices, intended to be used as an educational tool, promoting continuous environmental improvement for companies and suppliers. They are intended to be more general in nature and provoke thought, further research, and questions. It is each company's responsibility to apply these Guidelines in a way that is meaningful to their products and business.

Note: The non-governmental, governmental and private organizations, certifying bodies, and initiatives, standards and programs referenced in this document are only examples of the many that exist and is a snapshot in time. It is not an all-inclusive list or an endorsement. We encourage the user to explore options that are not included on this list.

Materials Guidelines

Durable Material Selection

- Select component materials, construction methods, product design, and finishing processes that ensure a long useful life
- Select materials that are stable and/or have long shelf-lives before processing
- Select materials that can be repaired or replaced and offer a means to do so
- Support innovation in the creation and use of more durable materials

Design for End of Life

- Select materials that can be:
 - Readily recycled at a reasonable cost using commonly available recycling streams and infrastructure
 - Up-cycled or recycled multiple times (e.g. single polymer or single non-polymer such as metal) rather than down-cycled
 - Reused and/or repurposed
- Provide a means or connection for reuse, recycling, repurposing, composting, or biodegrading materials at the end of their useful life, ensure they are easily assessable by customers, and help expedite the process (note: validate biodegradable, compostable and recyclable claims through third party certification² and ensure they meet local and national government requirements such as European Union regulations and U.S. Federal Trade Commission guidelines)

- Avoid materials that contaminate a recycling stream or manufacturing operation

Product Care and Use

- Consider product care during use when choosing materials; product care can be the largest environmental impact in some product lifecycles
- Consider materials that require the least care, maintenance, and inputs during the consumer use phase
- Select materials that can be cleaned efficiently and with little water, energy and chemicals
- For apparel, care label instructions should specify low impact care such as cold water wash, line dry, and no dry cleaning³

Understand Your Footprint/Minimize Your Waste

Reduce

- Minimize or reduce material usage where possible
- Select materials that require less energy and have a low carbon footprint throughout their lifetime, including raw material acquisition, material production, product manufacturing, product use and end-of-life
- Select materials that minimize the amount of fresh water used and wastewater created throughout their lifetime, including raw material acquisition, material production, product manufacturing, product use and end-of-life
- Select materials that impose less overall potential environmental impacts throughout the products lifetime, such as acidification, eutrophication, photochemical oxidant creation (smog), human and eco toxicity, and land use

Use of Resources

- Select synthetic, metal and alloy material options that result in reduced consumption of non-renewable resources; for example consider high recycled content rather than virgin content to reduce the need for mining and drilling
- Select natural fibers and biopolymers from low water usage and rapidly renewable crops or from agricultural waste
- Consider natural fiber and biopolymer agricultural inputs that are free from Genetically Modified Organisms (GMOs) or be transparent of the use of GMOs and the resulting environmental footprint
- Select natural fibers and biopolymers that are organically grown, transitional organically grown, use sustainable farming practices, or at least use low pesticide and fertilizer techniques (examples: Better Cotton Initiative (BCI)⁴ or the European Unions standards for wool⁵)
- Select natural fibers and biopolymers from documented traceable feedstock sources
- Select Forest Stewardship Council (FSC)⁶ certified fibers or recycled content for materials originating from wood fibers
- Select natural raw materials that are raised, harvested, and processed in an environmentally responsible manner
- Select materials that contribute to significant positive changes in manufacturing and processing efficiencies

Minimize Waste

- Strive to maximize materials utilization and thereby minimize materials waste
- Select materials that enable manufacturing to optimize utilization (e.g. optimized widths and sizes)
- Work closely with manufacturing to ensure that waste of materials is minimized and reutilized

Chemical Responsibility

- Follow all applicable regulations for manufacturing location(s) and markets where products are used
- Consider following the Twelve Principles of Green Chemistry⁷
- Adopt methodologies and systems to manage substances in the final product that may impact the health and well being of the consumer; consider certifications such as Oeko-Tex⁸, Bluesign⁹, Leather Working Group Protocol¹⁰, Global Organic Textile Standard (GOTS)¹¹ or one of the many other options available
- Adopt a corporate Restricted Substance List (RSL), confirm that suppliers have methodologies and systems in place to support compliance with an RSL and compliance with regulatory requirements such as those from the European Union; consider using the American Apparel and Footwear Association's (AAFA) RSL¹² or established RSLs from other organizations; methodologies should be vetted by 3rd party expertise
- Adopt methodologies and systems to manage chemicals inputs and outputs through the supply chain; consider third party certifications and verifications such as Bluesign, Oeko-Tex, Leather Working Group Protocol, GOTS or one of the many other options available
- Provide Material Safety Data Sheets (MSDS); validation and verification of the MSDS is strongly encouraged as a high percentage of MSDS information is inaccurate or incomplete

Know Your Supply Chain

Select/source from suppliers that:

- Comply with country of origin environmental regulations and consider the strength of the environmental regulations and infrastructure where suppliers are located when making sourcing decisions
- Create and maintain internal environmental management systems, programs and practices, with regular assessments and compliance audits; consider International Standardization Organization (ISO) 14001¹³ or other established standards and systems
- Are certified by recognized third party environmental resources; consider certifications such as Bluesign¹⁴, ISO standards, GOTS, Leather Working Group protocol¹⁵, or one of the many other options that exist
- Are able to integrate a portion of post-consumer and post-industrial recycled content into all materials. This strategy may result in the use of more recycled content compared to requiring 100% post-consumer or post-industrial recycled content in just a few materials
- Can and will identify the source of their inputs, and will be transparent about their practices; ideally will work with a tracking service such as String¹⁶ or certify to a standard such as Organic Exchange (OE) 100 or OE Blended¹⁷
- Comply with either a standard such as Business for Social Responsibility's (BSR) wastewater guidelines¹⁸ or all applicable local and/or national laws relating to water quality, whichever are more stringent

General References

Note: The non-governmental, governmental and private organizations, certifying bodies, and initiatives, standards and programs referenced in this document are only examples of the many that exist. This list is a snapshot in time. It is not an all-inclusive list or an endorsement. We encourage the user to explore options that are not included on this list.

- European Union Ecolabel (EU Flower) - http://ec.europa.eu/environment/ecolabel/index_en.htm
- Global Organic Textile Standard (GOTS) - www.global-standard.org
- Green Blue Sustainable Textile Standard - www.greenblue.org/activities_stm.html
- Green Choices/Norm Thompson Toolkit - www.bw-environmental.com/too.htm
- International Organization for Standardization (ISO) 14040 Eco Label - www.iso.org
- Interstoff Asia Labeling Standard - www.interstoff-asia.com
- International Wool Textile Organization (IWTO) - www.iwto.org
- LEAF Certification - www.leafuk.org/leafuk
- McDonough Braungart Design Chemistry (MBDC) Nutrient Scores and Cradle to Cradle - www.mbdc.com
- Nike Considered Index and Assessment tool - www.nikebiz.com/responsibility
- Oeko Tex 1000 - www.oeko-tex1000.com
- Outdoor Industry Association (OIA) Lenses Subgroup Metrics - www.oia-eco.org/lenses/default.aspx
- Organic Exchange 100 and Blended Standard – www.organicexchange.org Restricted Substance Lists:
 - American Apparel and Footwear Association (AAFA)
 - Apparel & Footwear International RSL Management Working Group AFIRM - www.afirm-group.com
 - Business for Social Responsibility - www.bsr.org
- SMART Textile Standard - http://mts.sustainableproducts.com/ApparelStandardApplication2_0.doc
- String Online Tracking Service – www.stringtogether.com
- Timberland Green Index - www.timberland.com/corp/index.jsp?page=env_steward

¹'Recyclable' claims should only be made for materials that are accepted in recycling streams easily accessible by customers and for materials that can be easily separated from the other materials in a product (e.g. multiple materials are not combined with adhesives): Reference examples: Recoverable by Recycling FTC Guide for the Use of Environmental Marketing Claims Section 260.7(d) for a definition of "recyclable" - www.ftc.gov/bcp/gnrnrule/guides980427.htm
U.S. EPA 2007 Estimates of U.S. Generation and Recovery of Materials (in millions of tons and percent of generation of each material) - <http://epa.gov/osw/nonhaz/municipal/pubs/msw07-fs.pdf>

²Examples of Biodegradable/Compostable Certifications include:

- Biodegradable Products Institute (North America) - www.bpiworld.org
- AIB Vincotte Inter (Belgium)
- Australian Environmental Labeling Association
- Japan Bioplastics Association (Japan) <http://www.jbpaweb.net/english/>
- DIN CERTCO (European Union) www.dincertco.de/en/index.html ASTM 6400 www.astm.org/

Example of Recycling Certification include <http://www.controlunion.com>

³Guides for low impact product care:

Project Laundry List:

<http://www.laundrylist.org/> BBC Bloom:

<http://www.bbc.co.uk/bloom>

⁴ Better Cotton Initiative (BCI) - <http://www.bettercotton.org>

⁵ Certified to the EU Ecolabel standard for greasy wool

⁶ Forest Stewardship Council (FSC) - www.fsc.org

⁷ Twelve Principles of Green Chemistry - www.epa.gov/greenchemistry/pubs/principles.html

⁸ Oeko Tex 100 - www.centexbel.be/Eng/product_service_certif_oekotex.htm

⁹ Bluesign - www.bluesign.com

¹⁰ Leather Working Group Protocol - <http://www.blcleathertech.com>

¹¹ Global Organic Textile Standard (GOTS) - <http://www.global-standard.org>

¹² American Apparel and Footwear Association's (AAFA) RSL – www.apparelandfootwear.org - note: the AAFA RSL and implementation guideline is a starting point for many companies as it focuses on regulatory requirements that affect apparel and footwear. Companies may want to also consider expanding their programs to go beyond the protocols developed by the AAFA RSL.

¹³ International Organization of Standardization (ISO) - www.iso.org

¹⁴ Bluesign - www.bluesign.com

¹⁵ Leather Working Group - www.blcleathertech.com/blc_Leather_Working_Group.aspx

¹⁶ String - www.stringtogether.com

¹⁷ Organic Exchange (OE) 100 or 100 Blended Standard - www.organicexchange.org

¹⁸ Business for Social Responsibility (BSR) - www.bsr.org/membership/working-groups/sustainable-water.cfm