



Product Description

Rayon textiles covered by this Product Sustainability Toolkit are used for apparel and home goods applications, and include finished goods that are formed from staple or filament rayon fiber, such as t-shirts, dress shirts, polo shirts, bed sheets, leggings, pants, luggage, and tablecloths.

Mission

The mission of The Sustainability Consortium (TSC) is to improve the sustainability of products when they are made, purchased, and used, with a focus on manufacturers and the retail buyers who decide what products to carry in stores. The information in this document is drawn from our detailed research on known and potential social and environmental impacts across product life cycles. TSC acknowledges that other issues exist, but we have included here those that are most relevant to the decision making of retail buying teams and manufacturers. The topics are listed alphabetically for ease of reading; the order does not represent prioritization or other criteria.

Sustainability Insights



Managing the Supply Chain

Deforestation

Unsustainable forest management and conversion of natural forests for rayon production can lead to biodiversity loss, reduced ecosystem quality, and increased greenhouse gas emissions. Manufacturers should use sourcing policies that require third-party audits or certifications based on site-specific observations, to promote protection of high conservation value forest habitats with unique plants and animals.

Supply Chain Transparency

Addressing many of the environmental and social challenges within a textile supply chain requires cooperation among companies at different stages of the supply chain. Chain-of-custody and other data-sharing systems and initiatives can help improve transparency about where textile materials are being sourced, and manufacturers and suppliers can work together to address common issues, such as energy, water, chemicals, worker health and safety, and labor rights.



Use of Resources

Climate and Energy

Fabrication and processing of textile materials, including dyeing and other chemical processing, consume significant amounts of energy and electricity. Manufacturers can help abate these impacts by measuring, tracking, and reporting energy use and greenhouse gas emissions, with a focus on reduction. They can also perform preventative maintenance on equipment, replace inefficient equipment, use renewable energy, and encourage efficient energy behaviors throughout their operations.

Material Efficiency

Textile manufacturers can help minimize the environmental impacts

of textile material sourcing and production by designing products that use less resource-intensive materials, are optimized for weight or volume, are durable, or are recyclable.

Pollution

Chemicals used in treating and dyeing textile fibers and fabric can escape manufacturing facilities and cause water pollution, posing risks to the surrounding community.

Manufacturers should implement a chemical management system to identify and control potential risks, use processes that minimize the amount of required chemicals, and use technology to treat and measure the quality of water they release from their factories.

Water

All stages of the textile and clothing production process use significant amounts of water for treating and dyeing fibers and fabrics, which can contribute to freshwater depletion and may be problematic in water-stressed regions. Textile manufacturers and suppliers should track water use, set water reduction goals, and implement new manufacturing technologies that significantly increase the efficiency of water use.



Workers and Communities

Forced or Child Labor

Forced and child labor are global issues being addressed by businesses and organizations worldwide. Manufacturers should implement codes of conduct for their suppliers, audit facilities across their supply chain, and publicly report their performance, to help ensure that there is no use of forced or child labor.

Workers

Workers may be exposed to hazards and, in some parts of the world, their rights to freedom of association, equal opportunity and treatment, and fair wages may not be protected. To help ensure worker health, safety, and labor rights, final product manufacturers should have a documented health and safety management plan, including a chemical management plan where needed, and provide safety training and personal protective equipment to workers. Manufacturers should procure materials from suppliers that address worker health and safety and labor rights transparently and should perform audits when needed.