

Revolutionizing Fashion: The Rise of Oekotech Eco-Friendly Fabrics

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SUMMARY

Oekotech textiles, made from eco-friendly materials like organic cotton, bamboo, and recycled polyester, are gaining popularity due to their minimal environmental impact. Prioritising environmental consciousness, oekotech signifies a balance between style and sustainability, paving the way for ethical fashion's future and endorsing a greener tomorrow.

INTRODUCTION

Ecological protection textiles, also known as oekotech textiles, are fabrics made from environmentally friendly materials and sustainable processes. This category includes textiles crafted from recycled materials as well as those made from natural fibres like cotton, wool, and silk. Oekotech textiles are produced with a focus on minimizing waste and pollution, utilizing sustainable materials. These fabrics are often more durable, healthier, and comfortable compared to conventional textiles. As awareness of the environmental impact of clothing grows, oekotech textiles are becoming increasingly popular. They are now widely available and used in a variety of products, ranging from carpets and upholstery to clothing and bedding.



Figure: Sustainable Fashion

For example, organic cotton is cultivated without synthetic fertilizers or pesticides, making it a more eco-friendly choice than conventional cotton. Bamboo grows faster, requires less water, and needs fewer chemicals compared to cotton. Hemp is another sustainable and durable fibre. Additionally, recycled polyester, made from plastic bottles and other waste, helps reduce pollution.

Fibres Used in Oekotech Textiles



Figure: Eco-Friendly Fabrics

Organic Cotton: Organic cotton is a widely used fibre that is grown without the use of harmful synthetic chemicals. It relies on natural fertilizers and is not genetically modified. Compared to conventional cotton, organic cotton has a smaller carbon footprint, as it requires less fuel and energy and generates fewer greenhouse gas emissions.

Bamboo: Bamboo is typically cultivated with little use of chemicals and possesses natural antibacterial and biodegradable qualities.

Hemp: Hemp is a sustainable resource that grows without the need for fertilizers or pesticides and does not strip the soil of its nutrients.

Organic Wool: Organic wool is wool that has been produced without the use of chemicals, such as pesticides.

Lyocell: Lyocell, made from natural cellulose wood pulp, is completely biodegradable and produced through a closed-loop process that uses fewer harmful chemicals.

Soybean Fibre: It is a by-product of processing soybeans for food.

Recycled Cotton: Recycled cotton is an eco-friendly material made from reclaimed cotton that would typically be wasted during the spinning, knitting, or garment cutting stages.

Recycled Polyester: It is a sustainable fabric created by converting plastic waste, usually plastic bottles, into fibres, which are then used to manufacture various textiles and garments.

Lenpur: Lenpur is an environmentally friendly fibre derived from the pulp of sustainably sourced white fir trees.

Ingeo Fibre: It is created through the fermentation of sugars extracted from corn plants.

The extensive use of harmful textiles and other products is causing significant damage to the environment. The planet suffers considerable harm throughout different stages of textile production. In this regard, oekotech offers considerable relief by utilizing less harmful fibres.

Oekotech Textiles Market Size

The global market for oekotech textiles is expected to grow at a Compound Annual Growth Rate (CAGR) of 3.5% over the next ten years, reaching an estimated value of \$16.5 billion by 2030. This market includes textiles and apparel that meet specific environmental and social standards. The International Oeko-Tex Association, an independent organization, sets guidelines for textile production to ensure that products are free from harmful substances and manufactured in an environmentally and socially responsible way. It's important to recognize that the oekotech textiles market is a specialized segment within the larger textile industry. While exact figures for the size and growth rate of the oekotech textiles market may not be easily accessible, it is clear that this market falls under the broader category of sustainable textiles. The growth of sustainable textiles is primarily driven by rising consumer demand for eco-friendly and socially responsible products, along with the introduction of regulations that encourage sustainable practices in the textile industry.

Oekotech Textiles Market Segmentation

The global oekotech textiles market is segmented into woven fabric, nonwoven fabric, knitted fabric, and others.

Woven Fabric: Woven fabrics hold the largest market share in the global Oeko-Tex textiles market. This is because end-users favour woven fabrics for their superior protection, which surpasses that of knitted and nonwoven fabrics.

Nonwoven Fabric: Nonwoven fabric is a type of flat material created from fibres that are arranged either in a random or structured pattern. It is made using continuous filaments like viscose rayon, polyester, and nylon, or shorter fibres that, while not ideal for fine yarn production, can still produce cost-effective nonwovens with good sewing qualities.

Knitted Fabric: In the global Oeko-Tex textiles market, knitted fabric is mainly used in textiles and apparel, including products like sweaters, scarves, gloves, and hats. The demand for knitted fabrics is anticipated to rise as awareness grows about the health benefits of wool-based clothing, such as a lower risk of allergies. As a result, this category has experienced considerable growth due to its diverse range of applications.

Main Advantages of Oekotech Textiles

There is a growing consumer demand for eco-friendly textiles, fueled by factors such as heightened public awareness of the environmental impact of the textile industry, the availability of more eco-friendly material choices, and the rising popularity of sustainable fashion. Oeko-Tex fabrics are not only environmentally friendly but also tend to be more comfortable, hygienic, and durable compared to traditional textiles. These fabrics are produced without harmful chemicals and are made from natural fibres that are breathable and moisture-wicking.

Environmentally Friendly: Oeko-Tex textiles are manufactured with minimal waste and pollution, using sustainable materials. This approach helps lower the carbon footprint and supports environmental conservation.

Comfortable: Oeko-Tex fabrics, typically crafted from natural fibres that are breathable and moisture-wicking, offer greater comfort. Additionally, they have a reduced likelihood of triggering allergic reactions.

Healthy: Oeko-Tex textiles are made without harmful chemicals, providing consumers with a safe and confident choice.

Durable: Oeko-Tex fabrics are usually crafted from durable, long-lasting fibres.

Affordable: Oeko-Tex fabrics are becoming increasingly affordable, making them accessible to a wider range of people.



Figure: Eco-Friendly Textiles

As consumers grow more conscious of the environmental effects of their clothing choices, the demand for Oeko-Tex textiles is anticipated to keep rising in the years ahead.

Important Market Players in Oekotech Textiles

The Oeko-Tex textiles market is highly competitive, with several major manufacturers vying for market share. Notable companies in this industry include Ahlstrom-Munksjo, Asahi Kasei, Dupont, Hyosung Corporation, Kimberly-Clark, 3M, Ruyi, Shanghai Textile, Shandong Weiqiao Pioneering, SKAP, Sunshine, and Toray. Dupont, recognized for its environmentally friendly textile solutions, is a key player in the Oeko-Tex textiles market. The company's main focus is on producing sustainable fabrics made from recycled fibres and bio-based materials. As consumer demand for eco-friendly fabrics increases and awareness of sustainability grows, Dupont has experienced steady market growth. Ahlstrom-Munksjo, a key player in the industry, is a global leader in innovative and sustainable fibre-based solutions. The company offers a wide range of Oeko-Tex textiles, including filtration media and nonwoven fabrics. Ahlstrom-Munksjo has seen substantial market growth in recent years, driven by the increasing demand for nonwoven textiles across various sectors such as automotive, healthcare, and hygiene products. 3M is well-known for its diverse range of products, including Oeko-Tex textiles. The company offers a variety of high-performance textiles, such as adhesive tapes, reflective materials, and flame-resistant fabrics. 3M's steady growth in the Oeko-Tex textile market has been largely driven by demand from the construction, automotive, and personal protective equipment industries. With its strong market position, extensive product range, and focus on innovation, the company is expected to continue expanding in the Oeko-Tex textiles sector.

Future of Oekotech Textiles

The Oeko-Tex textiles market is projected to experience significant growth in the coming years, driven by the increasing consumer demand for sustainable and eco-friendly fabrics. Made from organic fibres and recyclable materials, Oeko-Tex textiles provide an environmentally friendly alternative. This market growth is also supported by stricter regulations on waste management and textile manufacturing, as well as a rising consumer awareness of the environmental and health impacts of traditional textiles. With ongoing technological advancements and innovative production techniques, the Oeko-Tex textiles market is set for considerable expansion. The Oeko-Tex textiles market is expected to experience significant growth in North America, Asia-Pacific (APAC), and Europe. North America is likely to lead the market, driven by the region's growing emphasis on eco-friendly and sustainable practices. Europe is forecast to secure a substantial market share, fueled by its strict environmental regulations. APAC, particularly China, is anticipated to see considerable growth due to the expanding textile industry and increasing consumer awareness in the region. Based on current trends, North America is expected to hold around 40% of the market share, followed by Europe with 30% and APAC with 25%.

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