

## Quality Analysis and Certification of Textile Products by GOTS- Global Organic Textile Standard

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### ABSTRACT

*The article describes the role and importance of organic agriculture on a global scale, and also highlights the data justifying the feasibility and need for the application of international GOTS standards - controlling the production, processing, manufacturing, packaging, labeling, quality and certification, export and import of all products from natural fibers. In addition, a plan of practical measures for organizing the cultivation of organic raw cotton and the production of organic textile products in the Republic of Uzbekistan is outlined.*

**KEYWORDS:** *organic farming, Global Organic Textile Standard (GOTS), cotton, cotton fiber, organic fiber, toxicity, fiber length, textile industry, standardization, cotton fiber certification*

Organic farming is a global trend today. In 2019, trade in organic agriculture in international markets amounted to 96.7 billion euros, on 71.5 million hectares, 2.8 million producers were engaged in this type of activity.



According to experts, over the past 5 years, an average growth of 15 percent has been achieved in the global market for organic products; trade turnover in 2022 is projected at \$ 212 billion (20 percent of the total global agricultural production).

According to the Research Institute of Organic Agriculture (FiBL), 103 countries of the world have adopted a law on organic agriculture, in 6 countries this law is being developed.

In the publication of the Scientific Research Institute of Organic Agriculture (FiBL) and the International Federation of Organic Agriculture Movements (IFOAM) on the World Organic

Agricultural Statistics 2019, the Republic of Uzbekistan is included in a number of 10 countries in the world that have favorable conditions for fruit production, and the republic is also noted as with favorable land areas for growing organic fruits.

This article is devoted to the history of the emergence of GOTS standards, the need and relevance of growing, processing and obtaining products in terms of environmental safety, comfort, as well as high quality and safety indicators to fully meet the needs of the population. The quality and safety of such products obtained should be assessed in accordance with the latest generation international standards, taking into account the requirements of the modern stage of development of society.

One of the origins of the GOTS story began in the German "fashion city" Düsseldorf, which hosts the world's largest fashion fair every year. Düsseldorf in 2002 met organic cotton and textile producers, cotton appraisers (certification bodies) and consumers to discuss the creation of a single organic textile standard. Despite the fact that at that time several standards already existed on the market, the situation and needs dictated the emergence of new standards. At the same time, a problem arose: the oversaturation of the market with standards led to confusion - in practice, all of them only hindered the international recognition of organic textiles.

As a result, an international working group was created to agree on various standards and develop one global standard, but not everyone agreed with this in the end. In October 2006 the GOTS system started working, in 2008 at the IFOAM textile conference in Modena (Italy) the label was presented to the public for the first time. All previous similar standards have been withdrawn and GOTS has become the leading standard for organic fiber textiles, incorporating performance and social criteria.

In 2010, a database with GOTS certified enterprises and a product group was released - this was a powerful impetus for the development of the standard. It soon became clear that certified factories receive, on average, more orders for textiles than traditional factories. The first major venture to partner with GOTS was the American Wal-Mart, the world's largest retail chain.

As a result of many years of efforts to define globally recognized requirements that ensure the organic status of textiles, from field to finished product, GOTS has been developed by leading international standards developers - the Organic Trade Association (USA), Japan Organic Cotton Association, International Natural Textile Industry Association (Germany), and Soil Association (UK).

*In 2016, more than 3,800 enterprises were certified according to GOTS, where 840 thousand workers worked. A year later, the numbers had grown to 4,600 factories and 1.4 million workers.*

#### **The main requirements and process for obtaining a certificate according to the rules of the GOTS standard:**

- the rights of all workers should be protected and children should not be hired. Safe, hygienic conditions must be ensured by free choice of work, and the organization must comply with the contracts of the International Labor Organization (ILO), avoiding inhuman treatment;
- industries must have a written and environmentally certified policy;
- GOTS creates guidelines on how to deal with environmental issues in organic textile factories;
- Every organic producer needs a book or management plan describing the production of specially prepared organic textiles;

- all goods (including bags, packaging, boxes) must have labels;
- Certificates, invoices, transaction records, warehouse ledgers, invoices must be kept, and the organic structure of the products must be in all of them;
- an organic processor needs an accounting system to determine any economic amounts that he will receive in the sale and purchase process;

After all these conditions are met, the company receives an initial GOTS information package and fills out an application. To obtain a certificate, an independent private organization proposes a certain number of proposals, and then the certificate is signed by an authorized certification body.

In case of deficiencies, the organization that issues the certificate asks the company to make corrections. If the conditions are met, the company is registered in the online GOTS database. If no corrections are made within the specified time, a certification refusal document is issued.

The Global Organic Textile Standard (GOTS) is an internationally recognized standard. Since its inception in 2006, GOTS has demonstrated practical applicability, fueled by growing organic fiber consumption and industry and retail demand for uniform processing criteria.

GOTS is the world's leading textile processing standard for organic fibers, incorporating environmental and social criteria, independently certified throughout the textile supply chain. GOTS certified end products can include fiber products, yarns, threads, fabrics, clothing, home textiles, mattresses, personal care products, and food contact textiles and more.

The GOTS standard also applies to fiber products such as organic cotton swabs. This standard does not apply to leather goods.

The Global Organic Textile Standard (GOTS) has a well-defined set of criteria and is transparent. Sustainable fashion, ethical clothing, and honest manufacturing have many meanings.

The main advantage of GOTS is quality control and certification from the field to the store shelf. The standard controls the production (including labor relations), processing, manufacturing, packaging, labeling, export, import and distribution of all natural fiber products.

GOTS guarantees the organic status of textiles, from the collection of raw materials, environmentally and socially responsible production to finished products, in order to provide reliable guarantees to consumers. The standard covers the processing, manufacture, packaging, labeling, trade and distribution of all textiles with a certified organic natural fiber content of at least 70 percent.

When certifying products to the GOTS standard, the products must meet the technical requirements of the standard, as opposed to being certified to their own standard. In order to achieve high and ecological quality in the production and evaluation of textiles, it was decided by all stakeholders to create a global standard for organic textiles.

As a result, a standard was created and released to the market that allows suppliers to export organic textiles with a single GOTS certificate recognized in all sales markets.



If a manufacturer wants to certify their products to the GOTS standard, then the products must meet the technical requirements of the standard and cease certification to their own standard. To unite the interests of all parties and together achieve the goal - a global standard for organic textiles has been created. As a result, a standard was born that allows suppliers to export organic textiles with a single GOTS certificate, recognized in all sales markets.



Today GOTS recognizes as its equivalent:

- organic Trade Association standard;
- standard of the International Association of Natural Textile Industry (Germany) - in addition to GOTS, the organization has one more standard that corresponds to GOTS, but contains additional requirements;
- standards for processing and production of organic textiles Soil Association (England);
- JOCA (Japan) standards for organic cotton products;
- EKO Sustainable standard (Netherlands);
- standard for organic textiles Ecocert (France);
- standard for organic textiles ICEA (Italy);
- standard for organic textiles ETKO (Turkey);
- standard for organic textiles Oregon Tilth (USA);
- OIA (Argentina) processing standard for organic textiles

Having a single standard means that processors and textile manufacturers can export their fabrics and garments with the same organic certification accepted in all major markets. This transparency also empowers consumers to choose truly green products sourced from green supply chains.

GOTS has two types of markings:

- made with organic - awarded if the fabric is 70% organic cotton.
- organic – if organic fiber is not less than 95%.

The remaining 30% and 5% can be from certified organic and wood from sustainable forests (FSC and PEFC) or certified recycled synthetic fibers (recycled polyester, polyamide, polypropylene or polyurethane).



At the same time, out of 30% of inorganic fibers in the label made with organic synthetic, no more than 10% is allowed. There is an exception: socks, leggings and sportswear - up to 25% synthetics are allowed in them.

GOTS prohibits mixing organic and organic fibers of the same type in the same product.

One of the key GOTS rules is that organic fiber must be separated from normal fiber at all stages of processing.

According to GOTS requirements, it is prohibited to use:

- toxic heavy metals (including oils for knitting and weaving machines);
- formaldehyde;
- azo dyes (release carcinogenic amine compounds);
- aromatic solvents;
- functional nanoparticles;
- genetically modified organisms (GMOs) and their enzymes.

The standard restricts the use of synthetic sizing agents. Whitening - oxygen only, no chlorine. It is also prohibited to print on fabrics using aromatic solvents, phthalates. For the manufacture of accessories, PVC, nickel and chrome cannot be used. There should be no PVC in the packaging of goods either. Packaging should be made from recycled paper or FSC or PEFC certified paper.

Today it is almost impossible to manufacture textiles industrially without the use of chemicals, so GOTS strictly regulates their use - they must meet the requirements for toxicity and biodegradability.

GOTS does not prohibit individual chemicals, but entire classes. So, instead of banning specific chemicals like lead and cadmium, GOTS bans all heavy metals.

All manufacturers are required to implement environmental policies at their facilities, including procedures to minimize waste and harmful emissions into the environment. They must keep full records of the use of chemicals, water and electricity consumption, and wastewater treatment.

GOTS requires wastewater treatment to be controlled with pH and water temperature, biological and chemical residues.

In addition, GOTS obliges manufacturers to comply with technical quality parameters: resistance of the fabric to friction, sweat, light, washing and shrinkage.

The standard contains requirements for labor relations in certified enterprises. GOTS prohibits forced and slave labor. Working conditions must be safe, sanitary conditions must be observed. The salaries of employees must at least comply with national legal standards.

GOTS Certified fabric is the best choice in terms of carbon footprint, as GOTS does not directly affect the organization's carbon footprint.

GOTS certification is based on four distinctive and unique features:



Organic  
fiber



Environmental and  
social criteria



All stages of  
processing



Third Party  
Certification

The Global Organic Textile Standard covers the entire organic fiber manufacturing process, from textile processing and production to licensing and labeling.

While this is a rigorous process that must meet all criteria, the result is an internationally recognized organic certification that demonstrates to stakeholders, partners and consumers your commitment to providing sustainable, ethical and high quality products.

Completion of GOTS certification by an approved certification body includes the right to use the GOTS logo on GOTS products.

In order to develop the production of products in the Republic of Uzbekistan based on the international requirements of Organic and Global GAP, improve quality and safety indicators, as well as increase the possibility of the fullest use of the potential for the production of organic products in the country, the Decree of the President of the Republic of Uzbekistan dated May 18, 2020 No. DP-5995 " On additional measures to ensure the compliance of quality and safety indicators of agricultural products with international standards. "

According to this document, a plan of practical measures has been developed for organizing the cultivation of organic raw cotton and the production of organic textile products by cotton-textile production enterprises and clusters.

The action plan consists of the following main activities:

- organization of cooperation of the initiators - cotton-textile clusters with foreign enterprises, conducting effective activities in the direction of growing organic raw cotton and the production of organic textile products;
- training specialists for the production of products in accordance with the requirements of the Global Organic Textile Standard (GOTS).
- production of organic textile and other products from organic raw cotton;
- use of the trademark when labeling manufactured products in accordance with the requirements of the Global Organic Textile Standard (GOTS);
- organization of work on the export and sale in foreign markets of products certified in accordance with the requirements of the Global Standard for Organic Textiles (GOTS).

GOTS Certificates Set New Record In 2020, Reaching Five-Digit:

10388 GOTS Certified Enterprises in 2020, growth of 34% with over 3 million employees in 72 countries.

Significant growth is observed in all regions. India (2994), Bangladesh (1584), Turkey (1107), China (961), Germany (684), Italy (585), Portugal (449), Pakistan (391), USA ( 167) and Sri Lanka (126).



In conclusion, I would like to emphasize that this is a single quality standard that sets rules that are understandable for everyone. Buyers must be sure that their purchase is a safe, natural product that will not harm their health. Manufacturers are pleased to receive a true quality seal. And each participant knows for sure that the more goods with the GOTS certificate, the better for the environment and the whole society.

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