

Genetically Modified Cotton

Screening – Identification – Quantification

Organic cotton should not contain any genetic modifications, as this is against the principles of organic farming. International textile standards even strictly prohibit genetic modification of organic cotton.

To ensure that you are on the safe side, we test your products for genetically modified cotton, from screening to identification and quantification.



The test is suitable for

- Raw cotton, chemically untreated yarns and textiles

Description

Hohenstein is one of a few testing laboratories worldwide to be accredited according to ISO 17025 for the **ISO/IWA 32:2019 protocol** and thus also fulfils the strict requirements for GMO detection of the international Global Organic Textile Standard (GOTS) with its **GMO screening**. In a multi-stage process, the genetic material (DNA) is isolated from the cotton fibre, purified and examined for the currently known genetic modifications to cotton using the screening method. The test leads to a clear yes/no statement about the presence of genetically modified cotton in the sample examined.

Based on a positive GMO screening, the **GMO quantification** test can identify the cotton lines for which genetic modifications are known and quantify their respective proportion in the sample. This allows an assessment of whether this is an extremely minor blending for example due to contamination, or whether there is an admixture of larger proportions of genetically modified cotton.

Your benefit as a client

- Quality control
- Product identification
- Fraud management
- Supply chain transparency



Sample requirements

General

Usually, the DNA is protected in the nucleus of the cotton fibre. However, due to stress on the cotton during processing, it can happen that the cotton DNA in the cell nucleus is damaged or destroyed and thus a detection of genetic modifications is not possible. In this case, we recommend taking the sample from previous process stages or testing the raw cotton directly.

In order to carry out a GMO screening according to ISO/IWA 32:2019 and, e.g., for the recognition of the international Global Organic Textile Standard (GOTS), it is mandatory to carry out the test on raw cotton or chemically untreated yarns and textiles.

Quantity

- ca. 20 g of the sample

Test period

- GMO Screening: 6 – 8 working days
- GMO Screening with GMO quantification: 8 – 10 working days