

Report

Ecolabelling of textiles

A comparison of three different systems

Naty AB



Bra Miljöval





Report information

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Summary

EnviroPlanning Ltd has been commissioned by Naty AB to compare three different ecolabel criteria for textiles:

- GOTS version 3.0
- USDA National Organic Program
- Bra Miljöval (Good Environmental Choice) Textile Criteria 2012:1

The comparison is restricted to the areas where the criteria are different. The goal was to identify the areas where this difference can be used in marketing a product labelled with Good Environmental Choice.

Areas where any one of the criteria has unique requirements include:

- Synthetic fibres
- Fibres from wood
- Wool
- Fibre preparation
- Lamination
- Textile chemicals
- Printing
- Washing of finished product



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A Summary of requirements of the different criteria



1 Introduction

1.1 General

EnviroPlanning Ltd has been commissioned by Naty AB to compare three different ecolabel criteria for textiles:

- GOTS version 3.0
- USDA National Organic Program
- Bra Miljöval (Good Environmental Choice) Textile Criteria 2012:1

The comparison is based on the areas where demands are made and presented as a table where the requirements are described briefly. The requirements that are unique to the respective labels are described more fully in the text. The purpose of this comparison is to specifically highlight those requirements that are unique to Good Environmental Choice and make suggestions on how Naty can describe them positively in their marketing.

2 Background

2.1 GOTS version 3.0

Global Organic Textile Standard (GOTS) was developed to create a global standard for organic textiles. The standard sets demands from harvest to finished product. The requirements are both environmental and social. The first standard was introduced in 2006. Since then, the consumption of organic products has increased and more manufacturers have requested a standard. One advantage of GOTS is that the label is known and accepted worldwide.



Figur 1. *GOTS logotype*

2.2 USDA National Organic Program

USDA National Organic Program is the U.S. Department of Agriculture labelling for organic agricultural products and food. The label was established in 2002. The label requires the cultivation of cotton and other natural fibres but does not require the preparation of textile raw material after harvest. For example, chemical fertilisers, sewage sludge, irradiation and genetically modified organisms may not be used. As of this year, USDA-labelled products may be traded within the EU as organic, and vice versa.

Figur 2. *USDA's logotype*

2.3 Bra Miljöval (Good Environmental Choice) Textile Criteria 2012:1

The Swedish Society for Nature Conservation (SSNC) is Sweden's largest environmental organisation and has used Good Environmental Choice criteria for textiles since 1996. These criteria have recently been revised. Demands are on both constituent fibres and the processing of fibre to finished product. There are demands that both the natural fibres are to be organic and the synthetic fibres are to be recycled. Many of the processing requirements are similar to GOTS but Good

Environmental Choice requirements are generally more demanding.



Bra Miljöval

Figur 3. *Good Environmental Choice logotype*

2.4 Requirements of the various criteria

Good Environmental Choice, GOTS and USDA have different kinds of demands on different segments of the supply chain. To illustrate the types of requirements set by the different criteria, they are summarised in Table 1. The requirement levels are described in more detail in Appendix A.

Tabell 1. Summary of the types of requirements of the various labels

Requirements	Good Environmental Choice	GOTS	USDA
Organic natural fibres	yes	yes	yes
Second hand can be labelled	yes	no	no
Redesign can be labelled	yes	no	no
Preparation of bast fibres (e.g. flax)	yes	no	no
Preparation of cellulose	yes	no	no
Preparation of PLA fibres	yes	no	no
Preparation of technical protein fibres	yes	no	no
Preparation of spandex fibres	yes	no	no
Synthetic fibres from recycled materials	yes	yes, from 2014	no
Accessories (buttons, zippers etc.)	yes	yes	no
Padding material	yes	no	no
Lamination	yes	no	no
Prohibited substances in textile chemicals	yes	yes	no
Forbidden properties of substances in textile chemicals	yes	yes	no
Toxicity and biodegradability of textile chemicals	yes	yes	no
Biocides	yes	no	no
Nanoparticles	no	yes	no
Preparation requirements (spinning, knitting etc.)	yes	yes	no
Non-woven	yes	yes	no
Wash stages	yes	yes	no
Mercerisation	yes	yes	no
Dyes and pigments	yes	yes	no
Dyes	yes	no	no
Printing	yes	yes	no
Finishing	yes	yes	no
Water and energy consumption	yes	no	no



Requirements	Good Environmental Choice	GOTS	USDA
Wastewater treatment	yes	yes	no
Environmental performance	yes	yes	yes
Social and ethical requirements	yes	yes	no
Functional requirements	yes	yes	no

3 Unique requirements

This section describes the requirements that are unique to any of the labels. The comparison is largely of GOTS and Good Environmental Choice, as USDA is a primary label. Both GOTS and Good Environmental Choice are based on natural fibres being organic. Therefore, USDA and other organic raw material marks (certified by IFOAM or ISO Guide 65) are seen as a base for Good Environmental Choice and GOTS. The comparison therefore starts with the harvested fibre; cultivation requirements are not compared as they are judged to be similar.

The review is a selection of the standards for which there are differences and they have been selected because they constitute a major environmental benefit of the respective labelling. The environmental arguments are highlighted for requirements that have major differences. For a complete comparison of the three criteria refer to Appendix A.

Both Good Environmental Choice and GOTS have different levels of labelling. The comparison is on the minimum requirements of the respective labelling. The reason for this choice is that few consumers are expected to perceive the difference in the levels.

3.1 Synthetic fibres

Good Environmental Choice requires that all synthetic fibres, except spandex, are recycled from either second hand, production waste or other recycled plastics, such as PET bottles. GOTS allows up to 25% of synthetic fibres that do not need to be recycled. However, from 2014 polyester must be recycled. (BMV 1.1.1, 3.6.1, GOTS 2.4.9)

Environmental arguments

Good Environmental Choice requires all synthetic fibres to be recycled. This will save resources in the form of fossil oil, which is otherwise used for manufacturing. By recycling synthetic fibres, the life cycle is extended and the carbon dioxide emissions that arise when synthetic fibres become waste are pushed forward.

3.2 A combination of conventional and organic raw materials

Conventional and organic raw materials of the same fibre must not be mixed in USDA and GOTS.

3.3 Bamboo

Good Environmental Choice requires that the bamboo that is used to be certified according to FSV or ISO Guide 65.

3.4 Wild fibres

Wild fibres, such as kapok, must be collected in accordance with the Fair Wild Foundation to be approved as Good Environmental Choice. USDA states that wild fibre must not come from areas where prohibited substances (e.g. pesticides and sewage sludge) have been used in the last three years.

3.5 Fibres from wood

Viscose and rayon is often made from wood. Good Environmental Choice states that it must come from forests certified by the Forest Stewardship Council (FSC). There are no requirements for this type of fibre for GOTS and USDA. (BMV 2.3.1)

Environmental arguments

Many different species thrive in FSC certified forests, so it is not just the trees that provide timber that must be able to live there. Five percent of the area is saved for the sake of biodiversity. Special consideration is given to endangered species and wetlands. Alien and genetically modified trees must not be planted in certified forests.

3.6 Wool

All three ecolabels require organic livestock. Only Good Environmental Choice demands that mulesing must not be allowed. Mulesing means the removal of skin from around the buttocks of live sheep to prevent fly strike.

Animal ethical arguments

Good Environmental Choice guarantees that sheep are not subject to painful mulesing whereby live sheep have their buttocks flayed to prevent fly strike. (BMV 2.5.2)

3.7 Fibre preparation

Requirements are placed on extractant, water treatment, solvent recycling, emissions of metals (e.g. zinc, tin, antimony and aluminium) in the manufacture of cellulosic fibres, bast fibres (e.g. flax and hemp), PLA and technical protein fibres. There are no similar requirements for GOTS and USDA. (BMV 3.1-3.4)

Environmental arguments

Requirements reduce the risk of emissions impacting on lakes and streams. Emissions of volatile hydrocarbons and toxic and environmentally hazardous metals decrease. The textile industry is traditionally well known to have a major impact on the environment.

3.8 Accessories

A product may contain accessories that are made of materials other than textiles. It may be buttons, buckles and zippers but also visible parts that give the product stability or other properties.

Accessories in leather and fur must come only from animals reared for meat production. (BMV 4.1.2)

Accessories may not come from endangered types of wood or animals. (BMV 4.1.1 and GOTS 2.4.9)

Metal accessories in Good Environmental Choice must not be made of chrome and there are limitations for other metals (arsenic, cadmium, mercury, nickel). GOTS prohibits chromium and nickel accessories. (BMV 4.1.4 and GOTS 2.4.9)

GOTS has limits for a wide range of metals and various organic substances (such as phthalates, formaldehyde and pesticides). These requirements apply to both the textile base material and accessories. Good Environmental Choice does not set such strict requirements on accessories. (GOTS 2.4.9)

3.9 Various types of laminating

Lamination means that a layer of another material is joined to a fabric. This can be done with or without adhesive. This layer can give the fabric properties such as waterproofing or an altered appearance, as in film transfer printing. The same stringent chemical requirements placed on textile chemicals are also placed on the

material layers for Good Environmental Choice and the layer must not comprise more than 25 g/m² fabric. GOTS requires that printing with PVC and phthalates is not allowed, nor with perfluorinated substances. (BMV 4.3, GOTS 2.4.7, 2.3.1)

Environmental arguments:

Many laminations contain PVC or perfluorinated substances. There are many problems with PVC, from carcinogenic components in the plastic to the softening phthalates that damage the endocrine system and reproductive functions. Perfluorinated substances are stored in the body and are broken down extremely slowly in the wild. They are found in everything from umbilical cords to polar bears.

3.10 Textile chemicals

Very detailed requirements for both Good Environmental Choice and GOTS. The list of banned substances is almost identical. The big difference is that Good Environmental Choice places more stringent requirements on the use of chemicals not disturbing the environment. GOTS allows greater quantities of chemicals that are poorly degradable and more toxic. However, the health requirements on chemicals are more stringent for Good Environmental Choice. (BMV 5.1, GOTS 2.3.1, 2.3.2)

Environmental arguments:

No chemicals classified as toxic, carcinogenic, harmful to genes, disruptive to the reproductive system, toxic to animals and plants in water, harmful to the ozone layer, or causing foetal damage or long-term damage to the environment may be used in manufacturing processes. There are many examples of textile chemicals ranging from carcinogenic dyes to persistent oils and preservatives that are highly toxic to animals and plants in water. Good Environmental Choice does not allow agents that can cause acute or long-term harm to the aquatic environment, whereas GOTS does allow this up to 25%.

3.11 Printing

Good Environmental Choice has very detailed requirements for printing processes. GOTS has less detailed requirements. Printing pastes must be water-based and unused pastes must not end up in wastewater. Good Environmental Choice also has requirements for cleaning agents and wastewater treatment from the print shop.

References

GOTS version 3.0: http://www.global-standard.org/images/stories/gots-version3_01march2011.pdf

USDA National Organic Program: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=3f34f4c22f9aa8e6d9864cc2683cea02&tpl=/ecfrbrowse/Title07/7cfr205_main_02.tpl

Bra Miljöval (Good Environmental Choice) Textile Criteria 2012:1:
<http://www.naturskyddsforeningen.se/upload/Foreningsdokument/Foreningsdokument/Kriterier-Textil-120401.pdf>



Appendix A

Summary of requirements of the different criteria