



# NATURLAND STANDARDS

## PROCESSING

of timber produced under organic forest management

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## **I. Objectives**

Plants processing timber derived from organic forestry employ eco-friendly procedures to produce sawmill products, semi-finished goods, wood-based materials, complete wooden products and other timber processing products. They thereby take over from organically managed forest operations in their endeavour to maintain the natural habitats of plants, animals and human beings long-term and to make an active contribution to the conservation of the environment and natural resources.

## **II. Contracts and certification procedures**

### **1. Scope of application of the standards**

The standards describe the minimum requirements to be met by the product group of timber processing and by the timber trade. All legal provisions apply, more specifically the current list of standards issued by the German Institute for Standardization (DIN) applicable to the areas of furniture and wood and the special quality surveillance norms applicable to the wood sector which testify to compliance with the standards issued by the German organisations for the quality control of solid structural timber (KVH®) or of glued laminated timber (Institut Bauen und Umwelt e.V. – IBU).

In addition, efforts are to be made to achieve and even surpass to ensure the statutory requirements with respect to the health and safety of the employees.

The provisions of these standards are binding on all operations which have signed a sub-licence agreement with Naturland Zeichen GmbH. They describe the minimum requirements to be met when trading in and processing logs (including sawing services) and in the subsequent finishing and processing of wood to produce raw goods (semi-finished goods, wood-based products) and wood products. Only the currently valid version of the standards as passed by the association's committees is applicable.

Companies certified for compliance with the Naturland standards are informed about amendments.

Naturland - Verband für ökologischen Landbau e.V. reserves the right to make amendments to the standards. Any amendments are made in line with practice and licensees are informed in sufficient time about these adjustments. Processing plants are obliged to consult Naturland on any points which require clarification and in cases of doubt. Only by joint action and co-operation will the further development of these standards in accordance with ecological laws be possible. The processing standards are designed to guarantee the high quality of the end product with respect to its organic value. In addition, efforts are to be made to achieve and even surpass the statutory requirements with respect to the health and safety of the employees.

### **2. Contracts**

By signing the sub-licence agreement, the wood-processing company undertakes to comply with the general processing standards and the present standards governing the processing of timber produced under organic forest management. Furthermore, the sub-licence agreement stipulates the conditions applicable to the use of the Naturland logo.

### **3. Inspection**

The minimum requirements to be met with respect to the inspection of the wood-processing plant are set out in Annex 3. The plant is inspected regularly to ascertain compliance with the standards and statutory provisions by making both announced and unannounced visits to the plant at least once a year.

The defined scope of the inspection also includes fulfilment of the following requirements:

- production diary
- correct Naturland labelling

### **4. Product identification**

It is possible to use the Naturland trademark if the raw materials and raw goods are derived from forestry sources managed according to the Naturland standards and if they have also been processed according to these standards.

It is possible to identify products with the Naturland trademark if they contain less than 95% but at least 70% of raw goods certified to the Naturland standards, in which case the label must include details of the actual percentage of the raw materials and raw goods derived from forestry sources which are certified as compliant with the Naturland standards (cf. the regulations governing the use of the Naturland trademark – “The Naturland Trademark – Directions for the use of the trademark” and section III.2.2 of these standards).

### III. General production regulations

When applying the Naturland logo, a distinction must be made between the following product categories:

1. Pure wood products and wood products, the non-wood components of which are limited exclusively to wood joints and fittings authorised under these standards. They can be labelled with the Naturland logo without the need for any words of explanation.
2. The labelling of composite products which contain materials and components not derived from forestry as defined under section III.2.3 needs to include words of explanation in addition to the Naturland logo. These must indicate clearly that only the wooden portion of the product has been certified for compliance with the Naturland standards (cf. the regulations governing the use of the Naturland trademark – “The Naturland Trademark – Directions for the use of the trademark”).

The product identification and the declaration of all its components, and more especially the full material declaration of the surface treatment products must be true, clear and in a form enabling easy comparison with other products.

The products manufactured may be identified with the Naturland logo on individual products or as a product line. Timber and wood products sold in specialist stores as loose items have to be labelled clearly and precisely for the customer. At the same time the wood products manufactured in conformity with these standards must be clearly distinguishable from the rest of the product range.

### III. General production regulations

#### 1. Requirements of wood processing and timber businesses

Besides those processing plants which are dedicated solely to processing and/or working with wood in conformity with the Naturland standards, there are also operations which only manufacture part of their range in accordance with the requirements of the Naturland standards after having received permission to do so from the Naturland certification committee. The long-term aim should be to convert the whole range to organic. Until this is the case, such operations must guarantee the clear separation of products certified to the Naturland standards from uncertified products (logs, sawn timber, wood-based materials and wood products).

This means in detail:

- separate sections for the storage of timber, wood-based materials, semi-finished products and wood products in the areas of incoming products, wood-processing zones, outgoing products and transport. This separation must be clearly understandable to the inspectors. To ensure this, a suitable product identification system must be introduced and checked regularly in the course of internal inspections.
- Each individual operation procedure must be carried out in one closed cycle for a complete batch and at different times or locations from similar operation procedures carried out with timber that does not originate from certified organic forestry.
- Whenever possible, goods certified to the Naturland standards must be processed before conventional goods. If this is not possible, the machines and equipment must be cleaned thoroughly (e. g. with a dry run or with an initial waste cycle) before processing organic goods.
- In the case of services provided by third parties (sub-contractors) located outside the wood-processing plant, e. g. contract sawing of logs in a sawmill, the requirements made in the standards apply correspondingly. This means that sub-contracting agreements have to be concluded. Evidence to this effect must be produced when the plant is inspected.
- Every relevant stage of wood-working and -processing must be recorded in a suitable manner in order to be able to show all the current information necessary for all the stages of product chain certification. These records must be comprehensible at all times when presented for inspection.
- Any supplementary information with respect to the quality of the wood and which is included in the wording in the claims made on the wood products, such as, for example, the precise location of the source of the timber or the time the tree was felled (in the winter or during a particular phase of the moon) must also be recorded in such a way as to be comprehensible at any time when inspection is performed.
- In order to ensure that very rare procedures are also examined when inspection is performed, the Naturland certification committee must be given sufficient advance notice of when they are to be carried out and this date accepted by them.

## 2. Raw materials and raw goods

### 2.1 General information

Only those raw materials, raw goods and other materials listed below may be used.

According to the Naturland standards, the following materials in particular may not be used in processing:

1. genetically modified organisms
2. parts of genetically modified organisms or cells
3. products made from genetically modified organisms or cells

Furthermore, the raw materials and raw goods, agents and additives may not have been treated with micro-waves or ionising radiation.

The processing plant must ensure that such materials and processes are used neither directly (in raw materials, raw goods, agents and processing additives) nor indirectly (in the form of semi-finished products) in the products manufactured according to these standards.

### 2.2 Origin of raw materials and raw goods derived from forestry

Raw materials and raw goods derived from forestry are always to be chosen in the following list of priorities:

1. logs, sawmill products, semi-finished products and wood-based products sourced from Naturland operations  
If these are not available, then
2. logs, sawmill products, semi-finished products and wood-based products certified according to the current German FSC standards (FSC = Forest Stewardship Council)  
If these are not available, then
3. logs, sawmill products, semi-finished products and wood-based products with no Naturland or FSC certification

At all events the aim is to use only raw materials and raw goods which have been produced in accordance with the Naturland standards. If these are not available, then application may be made to the Naturland certification committee for permission to use raw materials and raw goods from other origins as per the above list of priorities. To be able to do so, the respective company must submit proof that the corresponding raw material or raw goods are not available either in Naturland quality in sufficient quantities and/or quality. Raw forestry materials and raw goods not certified to the Naturland standards may comprise a maximum of 30% of the finished end-product (cf. section II.4).

Permission must be applied for from the Naturland certification committee to use a percentage deviating from the one specified for a transitional period until such time as a reliable source of logs, sawmill products, semi-finished products and wood-based products certified to the Naturland standards is found which can supply them in sufficient quality and quantity. In such a case, only FSC-certified goods may be considered.

### 2.3 Origin of materials not derived from forestry

The choice of materials not derived from forestry, but which are used for certified wood products needs to be made on the basis of the best possible recyclability or reusability and the greatest degree of varietal purity. In order to exclude allergic reactions, metallic materials may not contain any nickel. Furthermore, the use of plastics is prohibited.

The use of wood joints, fittings etc. is regulated in section III.5.

Where wood products contain materials and parts of products not derived from forestry, they are considered as compound products which need to be marked separately (cf. section II.4).

## 3. Sawing and sawmill

### 3.1 Warehouse protection for logs, sawn timber, sawdust and bark waste

Treating stored logs and sawn timber certified to the Naturland standards with synthetic chemical storage protection substances and biocides is prohibited. The same applies to the bark waste produced when debarking (stripping) logs certified by Naturland as well as to the bi-products occurring when sawing the wood or using profile chipper technology, such as sawdust, woodchips and sawmill residue.

### **3.2 Pond storage and log yards with sprinkler systems**

When logs are stored in ponds or on sites with permanently operating sprinkler systems, all the requirements and conditions imposed by the water authorities and especially the ecological effects on adjoining bodies of water are to be considered. If there is any risk of adjoining areas being polluted with contaminated effluent, suitable and necessary protective measures are to be adopted and these are to be inspected regularly to ensure they are functioning efficiently.

### **3.3 Sub-contracted log cutting**

If the services of a sawmill which is not certified by Naturland or of a mobile sawing machine are used to process logs certified by Naturland for the purpose of manufacturing sawn timber, the requirements stipulated in these standards apply accordingly. A sub-contracting agreement must be concluded. The stages of the procedures employed must be recorded in detail. It is essential that the logs, sawn timber and all the semi-finished products and bi-products are stored in a clearly marked separate area.

## **4. Wood drying**

Sawn wood and other bi-products produced when cutting the logs should be dried in the most energy-efficient manner possible in accordance with state-of-the-art technology, exploiting to the maximum all the possibilities available for natural wood drying.

In order to generate the necessary thermal energy for kiln drying, efforts should be made to use the greatest percentage possible of sources of renewable energy.

In order to ensure that the wood products are of the best possible quality, the moisture of the wood must be checked directly before processing begins. If the ideal equilibrium moisture content of the wood is not sufficient for the intended field of application of the wood products to be made, this must be corrected accordingly by postdrying.

## **5. Wood-based materials and wood processing**

### **5.1 Definition of terms**

Wood-based materials are compound products made of layers of solid wood (including veneer) or wood shavings of various thicknesses and sizes. These can take the following forms:

- flat surface materials or moulded parts such as plywood, blockboards, three-layer panels, glue-laminated panels, fibreboards, oriented strand boards (OSB) etc.
- construction timber such as glued laminated timber (glulam) or laminated veneer lumber (LVL)

### **5.2 Wood joints**

#### **5.2.1 Metal joints**

Screws, nails, brackets etc. may be used in the manufacture of wood-based materials or to make a constructive connection between wood-based materials and parts made of solid timber.

#### **5.2.2 Plastic joints**

Dowels, screws, pins etc. made of plastic are not permitted for use in the manufacture of wood-based materials or to make a constructive connection between wood-based materials and parts made of solid timber.

#### **5.2.3 Adhesives and glues**

Adhesives and glues which are used in the manufacture of wood-based materials or to make a constructive connection between wood-based materials and parts made of solid timber may not contain any prohibited ingredients or emit them (cf. Annex 1).

The use of glues derived from natural sources (e. g. bone glue, casein, tannin) or manufactured on the basis of polyvinyl acetate (white glue) is recommended, on the condition that they do not contain the ingredients listed in Annex 1.

When manufacturing products certified by Naturland which use glued laminated timber and solid structural timber, application for approval of any exceptions to be allowed on the basis of current DIN standards must be made to the Naturland certification committee.

### 5.3 Fittings

Application must be made to the Naturland certification committee for approval to use fittings (hinges, locks, handles, feet) on wood products certified by Naturland.

### 5.4 Wood preservatives

The use of synthetic chemical wood preservatives (insecticides, fungal inhibitors, biocides) is permissible neither in the production of semi-finished products and wood-based materials nor to treat solid wood, sawn timber, semi-finished products, wood-based materials or wood products.

### 5.5 Surface treatment

In order to preserve the wood's properties that make it ideally suitable for indoor climates, consideration should always be given to the respective properties of the type of wood and the purpose to which it is being put to see if there is any way to avoid treating the surface. If this is not possible or is rejected for aesthetic reasons, then preference should be given to open-pored surface treatments.

In this case solvent-free or low-solvent coats made of renewable raw materials are permissible. It is then essential that a full declaration of all the ingredients of the coating agent is made and submitted to the Naturland certification committee in advance of use.

### 5.6 Special areas of wood processing

Other special wood processing procedures must comply with these standards, even if they are not listed below. In such cases application must be made to the Naturland certification committee for approval.

#### 5.6.1 Charcoal

As a general rule, charcoal is produced from logs<sup>1</sup>.

In order to protect the environment, to achieve the highest possible energy efficiency and to ensure the best possible capture and recovery of all the wood components, these standards only allow the use of retort systems (closed systems) for the production of charcoal.

The bi-products of the pyrolysis process which are produced during carbonisation must be collected and materially or thermally recycled. In order to prevent the occurrence of environmental pollution from the discharge of substances or to keep it to a minimum, appropriate technical precautions are to be made. These measures must be monitored (e. g. measurement of exhaust gas emissions) to ascertain their efficiency, and the results recorded.

The manufacturing process must be energy-neutral to the greatest extent possible.

As much as possible of the waste heat produced in this process must be used for other purposes, e. g. to pre-dry the logs. Efforts must be made, wherever possible, to produce regenerative energy from the waste heat and from the incineration of the bi-products or their recovery. As a rule, external energy is only required to chop up the raw wood, to transport the timber and charcoal and to initiate the carbonation process.

#### 5.6.2 Charcoal briquettes

Charcoal briquettes are manufactured solely from the charcoal dust produced in the manufacture of charcoal in compliance with these standards, water and a bonding agent which is authorised under food legislation, GMO-free and not made of synthetic chemicals. Application must be made to the Naturland certification committee for each type of bonding agent, giving details of its content by weight.

The charcoal briquettes must be dried using the process energy produced in the manufacture of the charcoal<sup>2</sup>.

## 6. Packaging

With respect to packaging, consideration should be paid to the sparing use of raw materials and to keeping ecological damage caused by the manufacture, use and disposal of the packaging materials to a minimum (cf. Annex 2). For this reason, the role of packaging should be restricted to maintaining the wood moisture content, ensuring that hygiene requirements are fulfilled, to compliance with health and safety regulations and to preserving the sensory quality of the products.

When taking marketing decisions, priority should be given to ecological requirements. (Waste prevention takes priority over waste recycling.) Reusable packaging may only then not be employed in cases where this is

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<sup>1</sup> Application must be made to the Naturland certification committee for approval of exceptions, such as the use of sawmill waste.

<sup>2</sup> If the waste heat produced in the manufacture of the charcoal is used for other purposes, exceptions to this requirement may be granted.

impossible or not useful to expect. In the interest of waste recycling, the individual components of packaging materials should be recyclable (single-material or separable two-component packaging).

### **7. Storage and transport**

The products manufactured according to these standards and any raw materials, semi-finished products, wood-based materials and wood products used in them must be stored and transported in such a manner as to keep any deterioration in their quality or ecological damage which their storage or transport may cause to a minimum. For this reason, the distances they are transported are to be kept short. During storage and transport the products must be clearly and unmistakably identified; this applies particularly to plants where both organic and conventionally manufactured products are stored, processed and transported. Transport labels must be clearly legible.

Measures must be adopted to ensure that it is impossible to incorporate any raw materials that were not produced in compliance with these standards.

As a general principle, locally sourced products supplied in reusable packaging are to be preferred.

### **8. Quality assurance and testing for hazardous substances**

Organic forestry management and wood-processing performed according to these standards ensure that processes and substances which are detrimental to the environment are avoided to the greatest extent possible. However, as a result of general environmental pollution, harmful substances may still be found in organically manufactured products.

## **IV. Annex**

### **Annex 1: List of the ingredients prohibited from use in adhesives and glues**

- formaldehyde (prohibited both as a component and as a preservative)
- isocyanate
- polyurethane
- phenolic resins

### **Annex 2: List of authorised packaging materials**

- paper (whenever possible unbleached and unglazed)
- cardboard cartons
- pressboard
- wood, leaves
- foil or bags made of plasticiser-free polymers (polyethylene (PE), polyamide (PA) and polypropylene (PP) and uncoated cellophane; either on their own or in the form of a composite foil)
- packaging trays made of groundwood
- other packing materials (labels, clip closures, lids)
- reusable packaging
- When using labels, attention needs to be paid to use solvent-free glues and colours only; adhesive materials containing PVC are prohibited. Labels may only be printed with inks free of heavy metals and aluminium. Aluminium tubes are prohibited.

### **Annex 3: Scope of the inspection performed in a processing plant**

- documentation of the current product range as well as of the advertising material and business stationery
- documentation of the sawmill products, semi-finished goods, wood-based materials and wood products placed on the market and details of how they are labelled
- inspection of the internal product identification system
- proof of all raw materials and raw goods used and scrutiny of the trade certificate and specifications
- list of suppliers
- documentation of the use and composition of sawmill products, semi-finished goods and wood-based materials
- an overview of the processing procedures
- a table showing the machines and equipment used (including types of machine and their functions)
- transport vehicles, warehouse
- list of the packing materials used

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