natureplus e.V.

# Guideline 0301

# Thermal Insulation Composite Systems for Interior Use

Version: Oct. 23, 2026
for the awardance of the eco-label

# Introduction

The International Association for Sustainable Building and Living - natureplus association - pursues the goal of promoting sustainable building products and increasing their popularity and use. To this end, sustainability criteria for building products are defined and verified as part of regular conformity assessments at the applicant's premises.

Three comprehensive sustainability definitions are created to achieve a holistic understanding of quality.

## CLIMATE PROTECTION

The climate crisis is worsening, and the consequences are becoming increasingly visible. The construction sector is one of the largest emitters, accounting for around 40% [1] of global greenhouse gas emissions. Energy-intensive manufacturing processes, long transport routes and short renovation cycles are often still characteristic of the status quo.

The natureplus certification requires manufacturers to meet limit values on CO2 emissions and primary energy consumption.

[1] UNEP, 2020, 2020 Global Status Report for Buildings and Construction, p. 4.

## HEALTHY LIVING

In Western societies, we spend about 90% [2] of our lives in buildings. Pollutants emitted by building materials can accumulate in the indoor air we breathe daily, posing unnecessary health risks to occupants. The accumulation of chemical pollutants from building materials in household dust is also a cause for concern.

The natureplus certification ensures that hazardous input materials are avoided or used in quantities that are harmless to health. Emissions from building products are strictly regulated and regularly monitored.

[2] Umweltbundesamt, o. D., Ausschuss für Innenraumrichtwerte (AIR)

## CONSERVATION OF RESOURCES

All construction activities have an impact on nature and the environment, with the consumption of finite resources remaining unacceptably high. The production of building materials in Germany consumes about 60% of our resources, and as much as 90% if only mineral raw materials are considered. At the same time, the construction sector is responsible for 50% of the waste generated. [3]

The natureplus certification sets out requirements for increased transparency in the supply chain, respect for human rights and the environment, and the responsible use of resources throughout the life cycle of a building product.
Sustainable materials should also be durable, reusable, or recyclable.

[3] VDI ZRE, 2019, Ressourceneffizienz im Bauwesen – Von der Planung bis zum Bauwerk, p. 5.

## Notes on this product guideline:

The eco-label, the certification programme including all associated documents is the property of the non-profit natureplus® environmental organisation. The Association and its specially appointed Criteria Commission are therefore responsible for the further development of the requirements.

The label is awarded by the European cooperative natureplus Institute SCE mbH.

**In the event of textual discrepancies between different language versions of a guideline, the Criteria Commission's Task Force will determine the valid wording. The affected language versions will be amended to reflect the valid wording.**

**In the event of conflict between the basic guidelines (50XX) and this product guideline, the product award guideline shall prevail.**

For questions, criticism and suggestions, please contact:

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# 1 Application Areas

The following criteria contain the requirements for the awardance of the natureplus eco-label for the product group Thermal Insulation Composite Systems comprised of insulation materials, adhesives, fixings and a render/plaster system (base render with an embedded fibre-glass mesh (reinforcement), primer and finishing plaster):

- Thermal Insulation Composite Systems employing Cork Insulation Boards
- Thermal Insulation Composite Systems employing Wood-Fibre Insulation Boards
- Thermal Insulation Composite Systems employing Hemp Insulation Boards
- Thermal Insulation Composite Systems employing Reed Insulation Boards
- Thermal Insulation Composite Systems employing Mineral Foam Insulation Boards
- Thermal Insulation Composite Systems employing Foam Glass Insulation Boards
- Thermal Insulation Composite Systems employing Perlite Insulation Boards

This awardance guideline is to be applied exclusively to the named product group.

# 2 Award Criteria

The prerequisite for a product to be awarded the natureplus® quality label in accordance with these guidelines is compliance with the following award guidelines:

- GL5001 Chemicals Directive
- GL5002 Origin of Wood and Wood Production
- GL-5003 Nature Conservation when Exploiting Mineral Resources
- GL5004 Transparency and Social Responsibility
- GL5010 Low-emission building products
- GL5020 Climate compatibility and energy efficiency

The requirements of the basic guidelines can be fulfilled via certification of the individual components.

### Requirements for the system components

Wood fibre insulation boards must fulfil the requirements of the award guideline RL0201"Porous Wood Fibre Board". The award guideline RL0201 is also to be used in the case of products with a raw density below 230 kg/m3.

Hemp insulation boards must fulfil the requirements of the award guideline RL0101"Hemp Insulation".

Insulation boards made from reeds must fulfil the requirements of the award guideline RL0111"Straw and Reed Based Insulation".

Cork insulation boards must fulfil the requirements of the award guideline RL0113"Cork Insulation Boards".

Mineral based foam insulation boards must fulfil the requirements of the award guideline RL0406"Mineral Based Foam Insulation".

Foam glass boards must meet the requirements of the award guidelines RL0406 "Insulation boards made of foam glass".

Perlite insulation boards must fulfil the requirements of the awardance guideline RL0408 "Perlite insulation boards for Interior Use".

Finishing plasters, renders and adhesive mortars must fulfil the relevant product guideline from the following list:

- 0801 Plaster/Mortar for Internal Applications
- 0802 Gypsum and Gypsum-Based Plasters for Interior Use
- 0803 Loam/Clay Based Mortar
- 0804 Stabilised Loam/Clay Render/Mortar
- 0806 Renders and Plasters for Insulation Systems
- 0808 Mineral-Based Adhesive and Filler/Render/Plaster Coatings for Interior Use

The determination of the ecological indicators is thereby unnecessary.

## 2.1 Functional Suitability

The manufacturer must provide documentary evidence that the water vapour diffusion and condensation within the wall construction does not lead to moisture damage. Parameters which should be taken into account are the sorption capacity, the diffusion and the air-tightness. The manufacturer must provide the installer with

suitable informational and training documentation inorder that construction-related problems may be recognised and appropriate solutions found.

## 2.2 Composition, Forbidden Substances, Substance Restrictions

Plastic fixing plugs and accessories must be halogen-free and if available from recycled materials.

## 2.3 Raw Material Sourcing, Production of Preliminary Products, Production

No further requirements in this section.

## 2.4 Usage

No further requirements in this section.

## 2.5 Reuse, recycling and disposal

A disposal concept must be provided for the complete system. The components must be suitable for disposal in an inert materials disposal site/facility according to the "Decision of the EU council of the 19th December 2002 on the definition of criteria and procedures for the receipt and acceptance of waste products at waste disposal sites according to article 16 and appendix 2 of the guideline 1999/31/EG". Alternatively the components must be suitable for disposal in a waste incineration plant.

## 2.6 Ecological Parameters

No further requirements in this section.

## 2.7 Public Declaration

A public declaration of ingredients[1] must be provided in the official language of the country in which the product is intended for sale. It must be freely accessible.

Ingredients must be listed in descending order of weight. The following publicly accessible documentation paths are permitted:

- Product packaging
- Technical data sheet
- Sales brochures
- Website

Ingredients from preliminary products or preparations that remain in the final product with a content of >1 M% must also be included in the full declaration.

The following applies to the public declaration of ingredients:

- above 1 M% the name of the ingredient
- below 1 M% at least the functional name of the ingredient, the mass order is cancelled.

[1] Ingredients are substances and mixtures that remain in the final product. Reactants and ancillary input materials are included in the non-public full declaration submitted to the assessment body

Furthermore, there is an obligation to include the following information with the product or to make it available to the consumer or user in an appropriate manner (e.g. online):

- Instructions for use and safety instructions
- Storage and disposal instructions
- Batch numbers
- Country of production
- Country of origin of input materials > 20 M-% where there is a deviation from the country of production

When using ingredients with an environmentally hazardous potential, the applicant must indicate at an appropriate place which measures are to be taken within the framework of dismantling and demolition work to protect the environment (e.g. controlled dismantling).

## 2.8 Processing and Installation

No further requirements in this section.

### 2.9 Packaging

Once awarded, the natureplus label together with the license number must be printed on the packaging or made visible to the consumer in another suitable place.

## 3 LaboratoryTests

The products are subject to laboratory analyses to test for harmful substances and undesirable ancillary ingredients. A representative sample is collected during the production audit. If the sample collection cannot be conducted by a natureplus examiner, an independent person designated by natureplus can collect the sample. For products with different sizes but the same composition, a single sample is sufficient.

If all significant components of the system (finishing coat, rendering, adhesive mortar) is made from products certified by natureplus, no laboratory tests are necessary.

Otherwise, the system components are subject to laboratory tests as per the corresponding guideline for the single components.

The inspection body may order further laboratory tests if necessary.

### 3.1 Volatile Organic Compounds VOC / TVOC

Tests are to be carried out in accordance with the respective valid award guidelines for the system components according to Section 3 "Laboratory tests" (see Section 2: Requirements for the system components).

Laboratory tests of the entire External Thermal Insulation Composite System or additional components that are not covered by the natureplus Award Guidelines can be ordered by the Testing Laboratory if required.

### 3.2 Element Analyses

Tests are to be carried out in accordance with the respective valid award guidelines for the system components according to Section 3 "Laboratory tests" (see Section 2: Requirements for the system components).

### 3.3 Other Analyses

Tests are to be carried out in accordance with the respective valid award guidelines for the system components according to Section 3 "Laboratory tests" (see Section 2: Requirements for the system components).

## 4 Appendix

### Test methods

TM-01 VOC : Volatile Organic Compounds VOC/TVOC, formaldehyde, acetaldehyde and TSVOC: DIN EN ISO 16000 series expanded by the natureplus implementation rules in guideline 5010.

TM-02 Metals: ICP-MS measurements according to DIN EN ISO 17294-2, supplemented with the natureplus implementation rules and a sample preparation adjusted to the issue analysed.

TM-03 Halo: Halogenic organic compounds after combustion, determined by microcoulometry according to the natureplus implementation rules "AOX/EOX".

TM-04 Odour: natureplus implementation rules "odour intensity", 6-degree grading scale 3 days after loading the test chamber following VDA 270:2018.

TM-05 Pesticides: DFG S 19 extended by natureplus implementing regulations

TM-08 Foreign fibres and foreign substances: scanning electron microscopy SEM

TM-09 Monomeric isocyanates: 24h after test chamber loading

TM-10 PAH: HPLC / GC-MS, sum according to EPA