

natureplus e.V.

Award Guideline 0300

External Thermal Insulation Composite Systems

Issued: May 2015

for the awardance of the eco-label





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1. Application Areas

The following criteria contain the requirements for the awardance of the natureplus eco-label for the following external thermal insulation composite systems. These systems are comprised of an insulation material, adhesive, fixings and a render system (base render coat with an inlaid fibre-glass webbing/mesh (strengthening), primer or key coat and a finishing coat of plaster).

- External thermal insulation composite systems employing cork insulating boards
- External thermal insulation composite systems employing wood fibre insulating boards
- External thermal insulation composite systems employing hemp insulating boards
- External thermal insulation composite systems employing reed insulating boards
- External thermal insulation composite systems employing mineral foam insulating boards

The award guideline is to be applied exclusively to those products mentioned in this guideline.

2. Award Criteria

A pre-requirement for the awardance of the natureplus eco-label is the fulfilment of the Basic Criteria RL 0000. This applies to all system components except for the fixings, the fibre-glass webbing and any system accessories.

2.1 Pre-Requirements for the System Components

Wood fibre insulation boards must fulfil the requirements of the award guideline RL0100 "Insulation from Renewable Raw Materials" and 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 RL0100 "Insulation from Renewable Raw Materials" and the award guideline RL0101 "Hemp Insulation".

Insulation boards made from reeds must fulfil the requirements of the award guideline RL0100 "Insulation from Renewable Raw Materials" and the award guideline RL0111 "Straw and Reed Based Insulation".

Cork insulation boards must fulfil the requirements of the award guideline RL0100 "Insulation from Renewable Raw Materials" and the award guideline RL0113 "Cork Insulation Boards".



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Mineral based foam insulation boards must fulfil the requirements of the award guideline RL0400 "Insulation from Expanded, Inflated or Foamed Mineral Based Raw Materials" and the award guideline RL0406 "Mineral Based Foam Insulation".

The levels of organic components within the finishing render may not exceed 7 % (inclusive silicon resins) and may not exceed a maximum of 5% in the base render and the adhesive render. The following additives/components are not permitted:

- Glycol ethers and -esters
- APEO's (Alkyl phenol ethoxylate)
- Formaldehyde separators/dispersers

For wall paints, the following requirements apply:

Preservatives may only be used for pot-preservation for retail ready-to-use liquid products. They are not permitted for film-preservation. Biocides may not be used in products which, due to their properties (e.g. highly alkaline), do not require pot-preservation.

Siccatives (driers) containing cobalt are prohibited.

The product must not be classified in WGK 2 or WGK 3 (Water Hazard Classes 2 and 3) according to VwVwS (Administrative Regulation on the Classification of Substances Hazardous to Waters into Water Hazard Classes) of the German Environmental Agency (Umweltbundesamt).

With regard to the recommended application, the amount of anorganic white pigments of artificial origin is restricted to 38 g/m².

The following substances must not be added to the product:

- softening agents (according to VdL-GL 01)
- glycol compounds
- APEOs (alkylphenol ethoxylates)
- halogenic organic compounds
- organic tin compounds
- azo dyes resulting in carcinogenic amines
- biocides not used for in-can conservation (film preservatives)
- halogenated isothiazolinones
- formaldehyde releasing substances

Only pigments from titanium oxide, iron oxide or non-organic substances with comparable or lower toxicity levels are permitted. Pigments which are ecologically or toxicologically questionable, such as metal compounds which are forbidden as per GL-5001 are not permitted under any circumstances. The proportion of organic solvents must not exceed 0.05 M-%. The render/mortar may only contain low levels of chromates and must not display high levels of radioactivity.



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The product applying for certification must comply with the emissions thresholds specified in section 3 (laboratory tests).

The use of biocides for surface protection (eg. against algae growth) is not permitted. If pot-conservation is used, it must not be employed in amounts which imply the misuse for surface protection.

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

2.2 Suitability of Application

An official technical approval for the whole system must be available.

The European Organisation for Technical Approvals (EOTA) Guideline ETAG 004 and the Guideline for External Thermal Insulation Composite Systems with rendering for the use on timber frame building kits CUAP 04.04./26 (Common Understanding of Assessment Procedure (CUAP)) are to be used in the technical approval and evaluation of the products. Compliance with the relevant, valid national application documents must be confirmed.

The fixing plugs/anchors must comply with the relevant national requirements of the guideline ETAG 014 "PLASTIC ANCHORS FOR FIXING OF EXTERNAL THERMAL INSULATION COMPOSITE SYSTEMS WITH RENDERING". Broad-head fixings must comply with the requirements of CUAP 04.04/26.

The vapour diffusion resistance number μ (according to EN 12086) of the insulating material must not exceed a value of 10.

2.3 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.

2.4 Declaration

The product packaging should display a full declaration of the input materials listed, analogue to the EU-Cosmetic Regulations, according to the declining mass percentage. If it is not possible to display this information directly on the product packing, it should be provided with the product in a technical datasheet or sales leaflet (in English or in the national language).

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D-69151 Neckargemünd - Hauptstrasse 24
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If intermediate/preliminary products or formulations are used as input substances and the proportion present in the final product is >0.1 M-%, then all the substances used within these must also be taken into account for the declaration.

For naming the input materials as part of the declaration the following applies:

- More than 1 M-% - designation of the substance in question
- Less than 1 M-% - at least a functional designation (e.g. "moth proofing agent")

Furthermore, it is obligatory to provide the following information in a suitable form to the consumer or user (eg. online):

- Instructions for use and safety precautions
- Indications for storage and disposal
- Batch numbers
- City/town and country of production
- Indication of geographical origin of the key input material

When employing components with a potential for environmental hazard, the manufacturer has to suitably indicate measures to be taken to ensure environmental protection during removal and demolition (i.e. controlled deconstruction).

3. Laboratory Tests

Finishing plaster (white goods), rendering and adhesive mortars are subject to the following laboratory tests.

3.1 Element Analyses

The product is subject to an element analysis to determine the content of harmful elements and to check for undesirable contaminations. The measurements have to be in compliance with the limit values. The analysis is performed according to the current version of the test method TM-02 metals.

Element	Limit value	Unit
Arsenic (As)	5	mg/kg
Cadmium (Cd)	1	mg/kg
Cobalt (Co)	20	mg/kg
Mercury (Hg)	1	mg/kg
Nickel (Ni)	20	mg/kg

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Lead (Pb)	15	mg/kg
Antimon (Sb)	5	mg/kg
Tin (Sn)	5	mg/kg
Zinc (Zn)	150	mg/kg

3.2 Other Analyses

Parameter	Limit values	Unit	Method
Chrome VI (Cr VI)	≤ 2	mg/kg	TRGS 613
Halogenic organic compounds: AOX/EOX	≤ 1	mg/kg	TM-03 Halo
Free formaldehyde	≤ 20	mg/kg	UV Vis (VdL-RL 03)
TVOC	≤ 1000	mg/kg	Headspace GC/MS as per E DIN 55649