

natureplus e.V.

Award Guideline 0805

Renders for External Applications

Issued: June 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 renders which are exclusively for use in external applications. Renders which are also used for interior applications must comply with the requirements of the award guidelines relating to internal renders. This award guideline is to be applied exclusively to the named products.

2. Award Criteria

The prerequisite for the awardance of the natureplus eco-label is the fulfilment of the basic criteria GL-0000, of the chemicals directive GL-5001 and of the guideline for facility inspections GL-5004.

2.1 Suitability of Application

Renders for external applications have to comply with the requirements of DIN EN 13914-1 and DIN 18550-1 or comparable standards (except for loam/clay based mortar, whose requirements are found in the loam construction regulations by the German Association Lehm e.V.). Evidence of compliance with the requirements must be provided. The compression resistance according to these standards must be a minimum of 2.5 N/mm².

2.2 Composition, Forbidden Substances, Substance Restrictions

Only renders which contain mineral-based bonding agents will be eligible for the awardance of the eco-label.

The proportion of the organic components within the product is restricted to a maximum of 5%.

In particular, the following materials may not be used in the external renders:

- Biocides
- Halogen-organic compounds

The following substances must not be added to the product:

- glycol ether and esters
- APEOs (alkylphenol ethoxylates)
- halogenated isothiazolinones
- formaldehyde releasing substances



Award Guideline 0805

Renders for External Applications

Version: June 2015

Page 3 of 8

Products containing cement must be low in chromate as per TRGS 613.

Only pigments prepared from iron oxides or anorganic substances with comparable or less toxicity may be added to the product. Pigments posing ecological and toxicological problems prohibited as per GL-5001, e.g Naples yellow or metal compounds, are not permitted.

The product is subject to laboratory analyses as laid down in section 3 and has to comply with the limit values stated therein.

2.3 Raw Material Sourcing, Production of Preliminary Products, Production

A certificate of origin must be provided for all renewable raw materials. If mineral raw materials are used, the requirements of GL-5003 must be complied with. Evidence of compliance needs to be provided. If titan dioxide is employed, it must correspond with EU-GL 92/112/EWG.

If secondary raw materials are used, the product may if required, be tested for material specific parameters.

If the product contains more than 5% cement, the cement manufacturer must provide confirmation that the following requirements have been met:

- No raw materials have been used in the production of the cement which are classified as hazardous waste according to the directory of waste regulations (Abfallverzeichnisordnung (AVV)) or originate from areas which are classified as highly contaminated.
- The cement production equipment must meet modern standards for energy efficiency of the ovens and for the flue gas cleaning equipment. If waste products are also incinerated, then these waste products should be of a defined quality and not adversely affect the emission balance of the incineration process. The emissions must comply with the guideline 2000/76/EG of 4. December 2000 concerning the incineration of waste - Point II.1 "Special Regulations for Cement Ovens in which Waste Products are Incinerated"

2.4 Usage

The product must not exhibit any unpleasant or foreign smells or odours.

The emissions during use have to be in compliance with the limit values according to section 3.

The vapour diffusion resistance number μ must not exceed 15.



Award Guideline 0805

Renders for External Applications

Version: June 2015

2.5 Recycling/ Disposal

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”.

2.6 Ecological Parameters

The manufacturing of all products of this product group must be in compliance with the ecological parameters listed below.

Ecological parameters per m ² x cm	Guide values ¹
Primary energy input of non renewable total resources (PENRE ²) [MJ]	30
Primary energy input of non renewable and renewable total resources (PET ³) [MJ]	35
Photochemical ozone creation potential (POCP) [kg ethylen-equiv.]	0,001
Acidification potential (AP) [kg SO ₂ -equiv.]	0,008
Eutrophication potential (EP) [kg PO ₄ ³⁻ -equiv.]	0,0035
Global-warming potential (GWP) [kg CO ₂ equiv.]	3
Abiotic depletion potential (ADP) [kg Sb equiv.]	0,0000011

If a single guide value is exceeded, it will be decided on a case by case basis whether this is permissible for the purpose of optimising the complete product manufacturing process.

¹Testing method: Calculation of the ecological parameters according to natureplus® implementing provisions for life cycle assessments; inventory analysis analogous to ISO 14040ff; efficiency categories according to CML-IA version 4.1 from October 2012 and characterised as baseline; primary energy requirement according to Frischknecht 1996; global-warming potential 1994/100 years; system limits: raw material sourcing to products ready for shipment

² PENRE: **p**rimary **e**nergy input of **n**on renewable **e**nergy resources

³ PET: **p**rimary **e**nergy inputs of renewable and non renewable **t**otal resources

2.7 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). 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).

Additionally, the following product-specific information must be made available to the consumer or user.

- Information to the guarantee terms and guarantee period
- Minimum durability
- Consumption data
- Disposal of packaging

2.8 Processing and Installation

Products containing cement must comply with the requirements of EU-RL 2003/53/EG.



Award Guideline 0805

Renders for External Applications

Version: June 2015

2.9 Packaging

The packaging used must be recyclable. The manufacturer must participate in a recycling system if there is one for the corresponding material.

Paper and cardboard packaging must be made from recycled paper. Alternatively, paper from sources as per GL-5002 is permitted.

Plastic packaging must be comprised from polyolefins. PET, polystyrene or polycarbonates are allowed exceptionally in reasonable cases. Packaging made from PVC is generally not permitted.

Packaging must not contain biocides.

The natureplus certification mark has to be printed on the packaging after the awardance of the product.

3. Laboratory Tests

The products are subject to laboratory analyses to test for harmful substances and undesirable ancillary ingredients. A representative sample is collected during the site inspection. If the sample collection can not 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.

3.1 VOC - TVOC

Parameter	Limit value	Unit	Method
TVOC	≤ 500	mg/kg	Headspace GC/MS (120°C) analogue E DIN 55649
VOC classified in: C1, C2 ; M1, M2 ; R1 , R2 MAK III.1 und MAK III.2 ⁽¹⁾	n. m. ⁽²⁾		Headspace GC/MS (120°C) analogue E DIN 55649

⁽¹⁾ C = cancerogenic ; M = mutagenic ; R = toxic for reproduction ; classified according to GefStoffV (Germany)

⁽²⁾ not measurable, detection limit 1 mg/kg

3.2 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
Lead (Pb)	≤ 15	mg/kg
Antimony (Sb)	≤ 5	mg/kg
Tin (Sn)	≤ 5	mg/kg
Zinc (Zn)	≤ 150	mg/kg

3.3 Other Analyses

Test parameters	Limit values	Unit	Method
Chromium VI (Cr VI)	≤ 2	mg/kg	TRGS 613
Halogenic organic compounds: AOX/EOX	≤ 2	mg/kg	TM-03 Halo
Radioactivity			
Artificial radioactivity Cs-137	n. m. ⁽¹⁾		
Natural radioactivity: total avalue according to ÖNORM S 5200	≤ 0,75	Bq/kg	

⁽¹⁾ Not measurable.

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.



Award Guideline 0805
Renders for External Applications
Version: June 2015

Page 8 of 8

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".