

ANNEX 3

COVERINGS: WOOD AND PLANT BASED COVERINGS



FINAL DRAFT CRITERIA PROPOSAL

19 DECEMBER 2008

COMMISSION DECISION

(date)

establishing the ecological criteria for the award of the Community eco-label to

Coverings

(notified under document number)

(Text with EEA relevance)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Regulation (EC) No 1980/2000 of the European Parliament and of the Council of 17 July 2000 on a revised Community eco-label award scheme (1), and in particular Article 4 and Article 6(1) thereof,

Whereas:

(1) Under Regulation (EC) No 1980/2000 the Community eco-label may be awarded to a product possessing characteristics which enable it to contribute significantly to improvements in relation to key environmental aspects.

(2) Regulation (EC) No 1980/2000 provides that specific eco-label criteria are to be established according to product groups.

(3) The measures provided for in this Decision are based on the draft criteria developed by the European Union Ecolabelling Board established under Article 13 of Regulation (EC) No 1980/2000.

(4) The measures provided for in this Decision are in accordance with the opinion of the committee instituted by Article 17 of Regulation (EC) No 1980/2000,

HAS ADOPTED THIS DECISION:

ARTICLE 1

In order to be awarded the Community eco-label under Regulation (EC) No 1980/2000, a covering must fall within the product group 'Coverings' as defined in Article 2 of this Decision and must comply with the ecological criteria set out in the Annex.

ARTICLE 2

The product group 'Coverings' shall comprise the following products for internal/external use, without any relevant structural function:

- Hard Coverings: natural stones, agglomerated stones, concrete paving units, terrazzo tiles, ceramic tiles and clay tiles. For hard coverings the criteria can be applied both to floor and wall coverings;
- Wood and Plant based coverings: including wood and timber coverings, laminate floorings, cork coverings and bamboo floorings which are made, for more than 90% in mass (in the final product), from wood, wood powder and/or wood/plant based material. It does not apply to wall coverings, where properly indicated, or that for external use;
- Textile floor coverings: defined as floor covering, usually of woven, knitted, or needle-tufted fabric; commonly installed with tacks or staples, or by adhesives. Loose mats and rags are excluded. It does not apply to wall coverings or that for external use.

ARTICLE 3

For administrative purposes the code number assigned to the product group "coverings:_Wood and Plant based coverings: " shall be "..."

ARTICLE 4

This Decision shall apply from [...] until [...]. If on [...], revised criteria for this product group have not been adopted, this Decision shall apply until [...].

ARTICLE 5

This Decision is addressed to the Member States.

Done at Brussels, [...].

ANNEX

FRAMEWORK

The aims of the criteria

These criteria aim in particular at promoting:

- the reduction of impacts on habitats and associated resources,
- the reduction of energy consumption,
- the reduction of discharges of toxic or otherwise polluting substances into the environment,
- the reduction of use of dangerous substances in the materials and in the finished products,
- safety and absence of risk to health in the living environment,
- information that will enable the consumer to use the product in an efficient way which minimises the whole environmental impact.

The criteria are set at levels that promote the labelling of coverings that are produced with low environmental impact.

ASSESSMENT AND VERIFICATION REQUIREMENTS

“The specific assessment and verification requirements are indicated within each criterion.

The product group is structured in the following way (CEN definitions, when available, are reported in brackets) and can be subdivided into three main sub-products group: “Hard Coverings”, “Wood and Plant based coverings” and “Textile floor coverings”. Each sub-group is, then, subdivided into different families.

WOOD AND PLANT BASED COVERINGS

The group includes “Wood and Timber coverings”, “Laminate floorings”, “Cork coverings” and “Bamboo floorings”;

Wood and Timber coverings are “wood floors or wall coverings made of one solid piece of wood that have tongue and groove sides or constructed from several wood plies that are glued together in a multilayer panel. A wood covering can be unfinished, and once installed sanded, then finished on site or pre-finished in a factory. ”

Wood and Timber coverings criteria can be applicable both for wall and floor coverings, if the production processes remain the same, using the same materials and the same manufacturing methods. The criteria are set for internal use only.

The *European wood covering industry* determines its technical position as defined in the European commission **CEN/TC 112** norm.

Laminate floorings are “rigid floor covering with a surface layer consisting of one or more thin sheets of a fibrous material (usually paper), impregnated with aminoplastic thermosetting resins (usually melamine), pressed or bonded on a substrate, normally finished with a backer”.

Laminates coverings criteria can be applicable only for floor coverings and for internal use.

The *European laminate floor covering industry* determines its technical position as defined in the European commission **CEN/TC 134** norm.

Cork coverings are floor or wall coverings the main component of which is cork. The granulated cork is mixed with a binder, and then cured or several layers of cork (agglomerated/veneer) can be pressed together with glue.

The cork coverings can be divided into *Natural Cork tiles* (the main component of which is agglomerated composition cork, intended to be used with a finish) and in *Engineered Cork panels* (consisting of several layers including a fibreboard the main component of which is agglomerated cork or has cork as technical solution, intended to be used with a finishing wear layer).

Cork coverings criteria can be applicable both for wall and floor coverings, if the production processes remain the same, using the same materials and the same manufacturing methods. The criteria are set for internal use only.

The *European "cork" floor covering industry* determines its technical position in the European commission of normalisation CEN/TC134.

Bamboo floor covering are made of bamboo in solid pieces or in agglomerates as a main component.

Bamboo coverings criteria can be applicable only for floor coverings and for internal use.

The functional unit, to which inputs and outputs should be related, is 1 m² of finished product.

Where appropriate, test methods other than those indicated for each criterion may be used if their equivalence is accepted by the Competent Body assessing the application.

Where possible, testing should be performed by appropriately accredited laboratories or laboratories that meet the general requirements expressed in standard EN ISO 17025.

Where appropriate, Competent Bodies may require supporting documentation and may carry out independent verifications.

The Competent Bodies are recommended to take into account the implementation of recognised environmental management schemes, such as EMAS, ISO14001 when assessing applications and monitoring compliance with the criteria (*note*: it is not required to implement such management schemes).

WOOD AND PLANT BASED COVERINGS

CRITERIA

1. RAW MATERIALS

All cork, bamboo and virgin wood must originate from forests that are managed, to implement the principles and measures aimed at certifying sustainable forest management.

1.1 Sustainable forest management

At least 50% of the bamboo and virgin wood and at least 10% of the cork from forests must originate from sustainable managed forests, certified by independent third party forest certification schemes, fulfilling the criteria listed in paragraph 15 of the Council Resolution of 15 December 1998 on the Forestry Strategy for the EU and further development.

Cork, bamboo and virgin wood from forests that are not certified as being sustainably managed forests shall not originate from:

- disputed land-rights or primary old growth forests
- Illegal harvesting
Illegally harvested wood: wood that is harvested, traded or transported in a way that is in breach with applicable national regulations and international treaties (such regulations can for example address CITES species, money laundering, corruption and bribery¹, and other relevant national regulations).
- Genetically modified trees
Wood from genetically modified trees: which have been induced by various means to consist of genetic structural changes (for a definition of genetically modified, please refer to Directive 2001/18/EC on the deliberate release of genetically modified organisms in the environment). Please note that this does not exclude traditional tree breeding programmes, since these are not considered to be part of the techniques of genetic modification.
- Uncertified high conservation value forests
High Conservation Value Forests are forests that possess one or more of the following attributes:
 - a. forest areas containing globally, regionally or nationally significant concentrations of biodiversity values (e.g. endemism, endangered species, refugia); and/or large landscape level forests, contained within, or containing the management unit, where viable populations of most if not all naturally occurring species exist in natural patterns of distribution and abundance

¹ These are the topics addressed in the Commission communication on an EU Action plan on FLEGT.

- b. forest areas that are in or contain rare, threatened or endangered ecosystems
- c. forest areas that provide basic services of nature in critical situations (e.g. watershed protection, erosion control)
- d. forest areas fundamental to meeting basic needs of local communities (e.g. subsistence, health) and/or critical to local communities' traditional cultural identity (areas of cultural, ecological, economic or religious significance identified in cooperation with such local communities)

Assessment and verification: The applicant shall indicate types, quantities and origins of the wood used in the eco-labelled product. The origin of cork, bamboo and solid wood shall be indicated with sufficient precision to allow checks, where appropriate.

- *For cork, bamboo and solid wood from certified sustainably managed forests, the control of a chain of custody is required as a proof of supply of sustainable forestry resources. The manufacturer shall provide evidences of commitment to a credible certificate of chain of custody: (traceability procedure, letter of application for membership at one of systems, letter of control chain request with third part audit).*
- *For cork, bamboo and solid wood from uncertified sustainably managed forests, the applicant and/or the supplier shall indicate the species, quantity and origin of the timber used. The origin shall be indicated with sufficient precision to allow checks to be carried out that the timber is from well-managed forests. The appropriate declarations, charter, code of conduct or statement, verifying that the requirements of criterion 1.1. are met, shall be made available for checking. References to appendix (from existing forestry certification schemes) stipulating implementation of requirements from the avoidance of the procurement of raw material from controversial sources shall be brought.*

1.2 Recycled wood and plant materials (for laminate flooring and multilayer wood coverings)

At least 70% of the total weight of dry raw materials used for the panel board production shall be woodchip² or recycled wood and plant secondary materials.

For the multilayer wood coverings the criterion applies only to the particleboard layer.

The total amount of the recycled material shall comply with the limits indicated in table below:

² Processed post-consumer wood pieces formed by shredding, crushing, hammering or chopping.

Elements and compounds	Limit values (mg/kg of total dry panel)
Arsenic	25
Cadmium	50
Chromium	25
Copper	40
Lead	90
Mercury	25
Fluorine	100
Chlorine	1000
Pentachlorophenol (PCP)	5
Tar oils (benzo(a)pyrene)	0,5

Assessment and verification: A declaration shall be provided that recycled wood or plant materials is used in the production of laminates indicating, also, the percentage. In addition, test results shall be provided to verify compliance with limit values as laid down in text. If it can be proved that the substances indicated have not been used in any previous preparation or treatment, the application of test to demonstrate compliance with this requirement can be avoided.

1.3 Recycled cork (only for cork floorings)

At least 25% of the total weight of dry cork used for the coverings production shall be recycled³.

Assessment and verification: A declaration shall be provided that recycled cork material is used in the covering production and the requirement conformity.

2. USE OF DANGEROUS SUBSTANCES

2.1 Dangerous substances for the raw wood and plant treatments

No preservatives and biocides shall be used in preserving timber during the entire production process.

Assessment and verification: a declaration of non use shall be provided.

³“recycled cork” means all the secondary material coming from other uses; the manufacturing scraps can be considered as recycled material.

THE FOLLOWING POINTS ARE UNDER DISCUSSION BY ISC

(a) Cork, Bamboo and Wood used in wood and plant based materials shall not be treated with substances or preparation that are classified as carcinogenic (R45, R49), harmful to the reproductive system (R60, R61, R62, R63), mutagenic (R46, R68), toxic (R23, 24 , R25, R26, R27, R28), allergenic (R42, R43) or harmful to the environment (R50, R50/R53, R51/R53, R52, R52/R53, R53), as laid down in Directives 67/548/EEC, 1999/45/EC and their amendments.

(b) Chlorinated/brominated paraffins, halogenated organic flame retardants, organic tin compounds, phthalates and fluorinated compounds must not be actively added to the floor covering.

Cadmium (Cd), lead (Pb), chrome(VI) and mercury (Hg) must not be applied to the floor covering materials.

Only the flame retardants for which a registration number has been provided by the ECHA, in compliance with the REACH (REGULATION (EC) No 1907/2006)⁴, shall be allowed.

Until the registration is possible, suppliers of flame retardants shall declare the availability of information required to constitute the REACH registration dossier (in compliance with the Annexes V and VII to X of the REACH regulation) and which contains evidence that no classification for any of the risk phrases listed at the point (a) may occur.

(c) The content of free formaldehyde in products or preparations used in the panels shall not exceed 0.3% by weight.

The content of free formaldehyde in binding agents, adhesives, and glues for plywood panels or laminated wood panels shall not exceed 0.5% by weight.

Assessment and verification: the applicant shall provide appropriate declarations verifying that the above requirements are respected. For the chemical products used in the production a SDS or equivalent documentation shall be presented containing information on health hazard classification.

2.3 Dangerous substances in the coating and surface treatments

Generic requirements

Chemical substances classified as harmful for the environment by the chemical manufacturer/supplier in accordance with EU classification system (28th Amendment to Directive 67/548/EEC) shall comply with the 2 following limits:

1. Chemical substances classified as harmful for the environment in accordance with the Directive 1999/45/EG must not be added to substances and preparations for surface treatment.

⁴ OJ L 396 30.12.2006 p. 1

Nevertheless the products may contain up to 5 % volatile organic compounds (VOC) as defined in the Directive 1999/13/EC (VOC shall mean any organic compound having at 293,15 K a vapour pressure of 0,01 kPa or more, or having a corresponding volatility under the particular conditions of use.). If the product requires dilution, the contents of the diluted product must not exceed the abovementioned threshold values.

2. The applied quantity (wet paint/varnish) of environmentally harmful substances shall not exceed 14 g/m² surface area and applied quantity (wet paint/varnish) of VOC shall not exceed 35 g/m².

Assessment and verification: The applicant shall provide a declaration of compliance with this criterion, together with documents to support this declaration, including:

- a complete recipe with designation of quantities and CAS numbers for constituent substances;
- the test method and test results for all substances present in the product, according to the Directive 67/548/EEC;
- a declaration stating that all constituent substances have been disclosed;
- number of coats and quantity applied per coat per square meter of surface.

The following standard degrees of effectiveness are used for the purpose of calculating the consumption of surface treatment product and of the applied quantity: Spraying device without recycling 50%, spraying device with recycling 70%, electrostatic spraying 65%, spraying, bell/disk 80%, roller coating 95%, blanket coating 95%, vacuum coating 95%, dipping 95%, rinsing 95%.

(a) Chlorinated/brominated paraffins, halogenated organic flame retardants, organic tin compounds, phthalates and fluorinated compounds must not be actively added to the floor covering.

Cadmium (Cd), lead (Pb), chrome(VI) and mercury (Hg) must not be applied to the floor covering materials.

Only the flame retardants for which a registration number has been provided by the ECHA, in compliance with the REACH (REGULATION (EC) No 1907/2006)⁵, shall be allowed.

Until the registration is possible, suppliers of flame retardants shall declare the availability of information required to constitute the REACH registration dossier (in compliance with the Annexes V and VII to X of the REACH regulation) and which contains evidence that no classification for any of the risk phrases listed at the point (a) may occur.

(b) The content of free formaldehyde in products or preparations used in the panels shall not exceed 0.3% by weight.

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The content of free formaldehyde in binding agents, adhesives, and glues for plywood panels or laminated wood panels shall not exceed 0.5% by weight.

Assessment and verification: the applicant shall provide appropriate declarations verifying that the above requirements are respected. For the chemical products used in the production a SDS or equivalent documentation shall be presented containing information on health hazard classification.

Adhesives

They must comply with the general requirements defined in § 2.2 (b),(c),(d).

Assessment and verification: the applicant shall provide appropriate declarations verifying that the above requirements are met. For each chemical product used in the assembly of furniture, a SDS or equivalent documentation shall be presented containing information on health hazard classification. Test reports or a declaration from the supplier shall be provided for the free formaldehyde content.

The VOC content of adhesives used in the assembly of the product shall not exceed 10% by weight (w/w).

Assessment and verification: a declaration shall be provided by the applicant indicating all adhesives used in the assembly the product, as well as the compliance with this criterion.

Formaldehyde

Formaldehyde emissions from substances and preparations for surface treatment liberating formaldehyde shall be less than 0.05 ppm.

Assessment and verification: the applicant and/or its supplier shall provide the Material Safety Data Sheet or an equivalent declaration for the compliance of this requirement, together with information on the formulation of the surface treatment.

3. PRODUCTION PROCESS

3.1 Energy Consumption

The energy consumption shall be calculated as the process energy used for the production of the coverings.

The process energy, calculated as indicated in the Technical Appendix – A1, shall exceed the following limits (P= scoring point):

Product Family	Hurdle (P)
Wood floor and Bamboo coverings	10,5
Laminate floor coverings	12,5
Cork coverings	9

Assessment and verification: the applicant shall calculate the Energy consumption of the production process according to the Technical Appendix — A1 instructions providing the related results and supporting documentation.

3.2 Waste management

The applicant shall provide an appropriate documentation on the procedures adopted for the recovery of the by-products originated from the process. The applicant shall provide a report including the following information:

- kind and quantity of waste recovered;
- kind of disposal;
- information about the reuse (internally or externally to the production process) of waste and secondary materials in the production of new products.

Assessment and verification: the applicant shall provide appropriate documentation based on, for example, mass balance sheets and/or environmental reporting systems showing the rates of recovery achieved whether externally or internally, for example, by means of recycling, re-use or reclamation/regeneration.

4. USE PHASE

4.1 Release of dangerous substances

Formaldehyde release

The release of formaldehyde from the panels of cork, bamboo or wood fibres constituting the covering shall not exceed 0.05 ppm.

Assessment and verification: the applicant shall provide appropriate documentation based on test following the chamber method according to EN 717-1 method.

Volatile Organic Compounds (VOC)

The finished products must not exceed the following emission values:

Substance	Requirement (after 3 days)
Total organic compounds within the retention range C6 – C16 (TVOC)	0,25 mg/m ³ air
Total organic compounds within the retention range > C16 – C22 (TSVOC)	0,03 mg/m ³ air
Total VOC without LIC ⁶	0,05 mg/m ³ air

Assessment and verification: The applicant shall present a test certificate according to emission tests prEN 15052 or DIN ISO 16000-9.

⁶ LCI = Lowest Concentration of Interest; cf. "Health risk assessment process for emissions of volatile organic compounds (VOC) from building products" (Federal Environmental Agency).

5. PACKAGING

Paperboard used for the packaging of the final product should be multi-use systems or be made out of 70% recycled materials with a take back opportunity for recycling.

Assessment and verification: a sample of the product packaging shall be provided on application, together with a corresponding declaration of compliance with all the requirements. If plastics are used, an informative declaration about the correct disposal of the material shall be included on the packaging itself.

6. FITNESS FOR USE

The product shall be fit for use. This evidence may include data from appropriate ISO, CEN or equivalent test methods, such as national procedures.

Assessment and verification: details of the test procedures and results shall be provided, together with a declaration that the product is fit for use based on all other information about the best application by the end-user. According to Directive 89/106/EEC a product is presumed to be fit for use if it conforms to a harmonised standard, a European technical approval or a non-harmonised technical specification recognised at Community level. The EC conformity mark 'CE' for construction products provides producers with an attestation of conformity easily recognisable and may be considered as sufficient in this context.

7. CONSUMER INFORMATION

The product shall be sold with relevant user information, which provides advice on the product's proper and best general and technical use as well as its maintenance. It shall bear the following information on the packaging and/or on documentation accompanying the product:

- (a) information that the product has been awarded the EU Eco-label together with a brief yet specific explanation as to what this means in addition to the general information provided by box 2 of the logo;
- (b) recommendations for the use and maintenance of the product. This information should highlight all relevant instructions particularly referring to the maintenance and use of products. As appropriate, reference should be made to the features of the product's use under difficult climatic or other conditions, for example, frost resistance/water absorption, stain resistance, resistance to chemicals, necessary preparation of the underlying surface, cleaning instructions and recommended types of cleaning agents and cleaning intervals. The information should also include any possible indication on the product's potential life expectancy in technical terms, either as an average or as a range value;
- (c) an indication of the route of recycling or disposal (explanation in order to give the consumer information about the high possible performance of such a product);

(d) information on the EU Eco-label and its related product groups, including the following text (or equivalent): 'for more information visit the EU Eco-label website: <http://europa.eu.int/ecolabel>'.

Assessment and verification: the applicant shall provide a sample of the packaging and/or texts enclosed.

8. INFORMATION APPEARING ON THE ECOLABEL

Box 2 of the Ecolabel shall contain the following text:

- sustainable managed forests and reduced impact on habitats;
- hazardous substance restricted;
- production process energy saving;
- no risk to health in the living environment;

TECHNICAL APPENDIX

WOOD AND PLANT BASED COVERINGS

A1. ENERGY CONSUMPTION CALCULATION

Energy consumption is calculated as an annual average of the energy consumed during the production process (excluding premises heating) from the raw material in bulk to the finished covering. This means, for example, that the energy calculation for wood and plant based products shall be measured from the input of the raw material into the factory until the finishing operations, packaging included.

The calculation shall not include the energy content of the raw material (nda: feedstock energy).

The energy required to manufacture adhesives and varnish or coatings shall not be included in the calculations.

The unit chosen for the calculations is the **MJ/m²**.

Electricity consumption refers to electricity purchased from an external supplier.

If the producer has an energy surplus that is sold as electricity, steam or heat, the sold quantity can be deducted from the fuel consumption. Only the fuel that is actually used in floor covering production shall be included in the calculations.

Solid Wood floor and Bamboo coverings

Environmental parameter
A = Wood from certified, sustainable forest (%)
B = Proportion of renewable fuels (%)
C = Electricity consumption (MJ/m ²)
D = Fuel consumption (MJ/m ²)

$$P = \frac{A}{25} + \frac{B}{25} + (4 - 0,055 \times C) + (4 - 0,022 \times D)$$

Laminates flooring

Environmental parameter
A = Cork, Bamboo or Wood from certified, sustainable forest (%)
B = Proportion of recycled wood raw materials (%)
C = Proportion of renewable fuels (%)
D = Electricity consumption (MJ/m ²)
E = Fuel consumption (MJ/m ²)

$$P = \frac{A}{25} + \frac{B}{25} + \frac{C}{25} + (4 - 0,055 \times D) + (4 - 0,022 \times E)$$

Cork coverings

Environmental parameter
A = Wood from certified, sustainable forest (%)
B = Proportion of recycled cork (%)
C = Proportion of renewable fuels (%)
D = Electricity consumption (MJ/m ²)
E = Fuel consumption (MJ/m ²)

$$P = \frac{A}{25} + \frac{B}{25} + \frac{C}{25} + (4 - 0,055 \times D) + (4 - 0,022 \times E)$$

The energy contents of various fuels are provided in the following table.

Table A1: Table for calculating fuel consumption.

Production period (1 year)	Days	From	To	
Fuel	Quantity	Units	Conversion factor	Energy (MJ)
Straw (15% W)		kg	14.5	
Pellets (7% W)		kg	17.5	
Waste wood (20% W)		kg	14.7	
Wood chips (45% W)		kg	9.4	
Peat		kg	20	
Natural gas		kg	54,1	
Natural gas		Nm ³	38,8	
Butane		kg	49,3	
Kerosene		kg	46,5	
Gasoline		kg	52,7	
Diesel		kg	44,6	
Gas oil		kg	45,2	
Heavy Fuel oil		kg	42,7	
Dry Steam Coal		kg	30,6	
Anthracite		kg	29,7	
Charcoal		kg	33,7	
Industrial Coke		kg	27,9	
Electricity (from net)		kWh	3,6	
Total energy (MJ)				