ANNEX 2

of DT-ECO-01/2008

COVERINGS

FIRST DRAFT CRITERIA PROPOSAL

20 FEBRUARY 2008

IN RED ARE POINTED OUT THE MODIFICATION TO THE COMMISSION DECISION 2002/272/CE TEXT CRITERIA FOR HARD FLOOR COVERINGS

THE CRITERIA FOR THE "WOOD BASED FLOOR COVERINGS" AND FOR THE "TEXTILE FLOOR COVERINGS" SUB PRODUCT GROUPS HAVE BEEN INCLUDED, AS ESTABILISHED DURING THE 1ST EUEB MEETING.

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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 comprises 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 based floor coverings: including wood and timber floorings, laminate floorings and other wood based floorings which are made, for more than 90% in mass (in the final product), from wood, wood powder and/or wood-based material. It does not apply to wall coverings or that for external use;

- Textile floor coverings: including defined as heavy, durable floor covering, usually of woven, knitted, or needle-tufted fabric; commonly installed with tacks or staples, or by adhesives. It does not apply to wall coverings or that for external use.

ARTICLE 3

For administrative puropose the code number assigned to the product group "covering" shall be "021"

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 based floor coverings" and "Textile floor coverings". Each sub-group is, then, subdivided into different families.

HARD COVERINGS

This group can be divided into "Natural Stones" and into "Processed products".

Natural stones (CEN TC 246) are pieces of naturally occurring rock, and include marble, granite and other natural stones.

'Other' natural stones refers to natural stones whose technical characteristics are on the whole different from those of marble and granite as defined by CEN/TC 246/N.237 EN 12670 'Natural stones — Terminology'. Generally, such stones do not readily take a mirror polish and are not always extracted by blocks: sandstone, quartzite, slate, tuff, schist.

The group of **'processed stones'** can be further divided into **hardened** and **fired products**. **Hardened products** are *agglomerated stones*, *concrete paving units* and *terrazzo tiles*. **Fired products** are *ceramic tiles* and *clay tiles*.

Agglomerated Stones are industrial products manufactured from a mixture of aggregates, mainly from natural stone grit, and a binder as defined by JWG 229/246 EN 14618. The grit is normally composed of marble and granite quarry granulate and the binder is made from artificial components as unsaturated polyester resin or hydraulic cement. This group includes also artificial stones and compacted marble.

Concrete paving units are products for outer floor-coverings obtained by mixing sands, gravel, cement, inorganic pigments and additives, and vibro-compression as defined by CEN/TC 178. This group also includes concrete flags and concrete tiles.

Terrazzo tiles are a suitably compacted element of uniform shape and thickness, which meets specific geometrical requirements as defined by CEN/TC 229. The tiles are single or dual-layered. The single-layered are tiles completely made of granulates or chipping of a suitable aggregate, embedded in grey and white cement and water. The dual-layered tiles are terrazzo tiles made up of the first face or wear layer (with single-layered composition) and a second layer, known as backing or base concrete layer, whose surface is not exposed during normal use and which may be partially removed.

Ceramic tiles are thin slabs from clays and/or other inorganic raw materials, such as feldspar and quartz as defined by CEN/TC 67. They are usually shaped by extruding or pressing at room temperature, dried and subsequently fired at temperatures sufficient to develop the required propertiegliores. Tiles can be glazed or unglazed, are non-combustible and generally unaffected by light.

Clay tiles are units which satisfy certain shape and dimensional requirements, used for the surface course of pavements and manufactured predominantly from clay or other materials, with or without additions as defined by CEN 178.

WOOD BASED FLOOR COVERINGS

The group includes “Wood and Timber floorings”, “Laminate floorings” and “Other wood based floorings “.

Wood and Timber floorings are “wood floors made by 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 floor can be unfinished, and once installed sanded, then finished on site or pre-finished in a factory”.

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

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

Other wood based floorings are particular coverings made of vegetal material not properly defined as wood (i.e.: Cork and Bamboo floorings).

TEXTILE FLOOR COVERINGS

The group includes the family of carpets, defined as "heavy, durable floor covering, usually of woven, knitted, or needle-tufted fabric; commonly installed with tacks or staples, or by adhesives".

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

Certain criteria apply, specifically, only to one of the above subgroups where indicated. Instead, If no particular indication is given, the criterion applies to all products. Details on calculation procedures are given in the Technical Appendix.

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 or EDP when assessing applications and monitoring compliance with the criteria (*note:* it is not required to implement such management schemes).

HARD COVERINGS

CRITERIA

1 - RAW MATERIALS EXTRACTION

1.1. Extraction management (for natural products only)

(a) General requirements

"The overall extraction management score for natural stones shall be calculated as the total score based on a matrix of 9 main indicators[1]. The final score results from the sum of the individual scores given to each indicator, after multiplication by a corrective weighting (W). Quarries shall reach a weighted score of at least 25 points. The score for each indicator shall be within the bounds indicated by the exclusion hurdle (for the values see the relative table).

In addition to the scoring table, all of the following conditions shall be met:

- there shall be no interference with any deep confined waterbed;
- there shall be no interference with surface water-bodies with civil catching or springs, or if the water-body is included in the Register of Protected Areas established by Directive 2000/60/EC or if the watercourse's average flow is >5 m^2/s;
- there shall be a waste water recovery closed system for avoiding sawing waste dispersion to the environment and to feed the recycling loop. Water shall be contained in close proximity to the place where it is used in quarrying operations and then it shall be conveyed by closed pipes to the suitable processing plant. After clearing, water shall be recycled."

Assessment and verification: the applicant shall provide the calculation of the weighted overall extraction management score, and related data for each of the nine indicators (showing amongst others that each score is within the bounds of the corresponding exclusion hurdle, if one is given), according to the following matrix and to the corresponding instructions in the Technical Appendix — A1. The applicant shall also provide appropriate documentation and/or declarations that prove compliance with all of the abovementioned criteria.

[1] (1) OJ L 327, 22.12.2000, p. 1.

Indicator	Notes		Score				
			5 (excellent)	3 (good)	1 (sufficient)	Exclusion Hurdle	Relative weights
I1) Water consumption	$\frac{\text{Waste Water Recycled}}{\text{Total Water Leaving the Process}} \cdot 100$ See Technical Appendix – A3		> 80	80 – 70	69 – 65	< 65	W4
I2) Rehabilitation simultaneity degree	m^2 compromised area (quarry front + active dump) / m^2 authorised area [%]		< 15	15 – 30	31 – 50	> 50	W1, W2, W3
I3) Blocks recovery	m^3 commercial materials / m^3 extracted material [%]	MARBLES	> 60	60 – 50	49 – 40	< 40	-
		GRANITES	> 70	70 – 60	59 – 50	< 50	
		OTHERS	> 40	40 – 35	34 – 30	< 30	
I4) Natural resource appreciation	m^3 usable material / m^3 extracted material [%]	MARBLES	> 60	60 – 45	44 – 35	< 35	-
		GRANITES	> 60	60 – 45	44 – 35	< 35	
		OTHERS	> 50	50 – 35	34 – 25	< 25	
I5) Working conditions of operating equipment	Total n° of worked hours / yearly production [h/m^3]	WHEEL LOADER	< 3,5	3,5 – 5.5	> 5.5	-	-
		EXCAVATOR	< 2,5	2,5 – 3,0	> 3,0	-	
I6) Air quality	Yearly limit value measured along the border of quarry area. PM 10 suspended particles [$\mu g/Nm^3$] Testing method EN 12341		< 20	20 – 100	101 – 150	> 150	W1, W3
I7) Water quality	Suspended solids [mg/l] Testing method ISO 5667 - 17		< 15	15 – 30	31 – 40	> 40	W1, W2, W3, W4
I8) Noise	Measured along the border of quarry area (dB(A)) Testing method ISO 1996-1		< 30	30 – 55	56 – 60	> 60	W1, W3
I9) Visual impact	See Technical Appendix – A1		0 – 10	10,1 – 20	20,1 – 30	> 30	W1, W3

List of weights (to be used only where specified):

W1. Nature conservation: If the quarry area is located in:

- notified sites of Community importance pursuant to Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora[2], and its subsequent amendments,
- or in Natura 2000 network areas, composed of the special protection areas pursuant to Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds[3], and its subsequent amendments, and those areas under Directive 92/43/EEC together,
- or in equivalent areas located outside the European Community that fall under the corresponding provisions of the United Nations' Convention on Biological Diversity[4],

then W1 is relevant to the following indicators: rehabilitation simultaneity degree (I.2), air quality (I.6), water quality (I.7), noise (I.8), visual impact (I.9). The same rules shall apply if the quarry is outside such sites but could have significant effects on them, either individually or in combination with other plans and projects[5]. The corresponding specific weight is 0,3."

Assessment and verification: the applicant shall provide a declaration accompanied by appropriate documentation to show if the quarry area is located in or adjacent to sites of Community importance pursuant to the Directives 92/43/EEC and 79/409/EEC, as detailed above. The sites forming the Natura 2000 network areas are listed and reported on maps drawn up by the Member States (see http://ec.europa.eu/environment/nature/index_en.htm). In areas outside the European Community, the applicant shall provide a declaration accompanied by appropriate documentation to show if the quarry area is located in or adjacent to protected areas as determined under the United Nations' Convention on Biological Diversity 1992.

W2. Soil protection: for rehabilitation simultaneity degree (I.2) and water quality (I.7) indicators, three different values of weights are considered, as a function of land use potentialities (see Technical Appendix — A1 for details):

Soil protection	Classes I — II	Classes III — IV — V	Classes VI — VII — VIII
Weight	0,3	0,5	0,8

[2] OJ L 206, 22.7.1992, p. 7.

[3] OJ L 103, 25.4.1979, p.

[4] OJ L 309, 13.12.1993, p. 1.

[5] OJ L 206, 22.7.1992, in particular Article 6.

Assessment and verification: the applicant shall provide appropriate documentation, including a map, of the land capability classification of the quarry site.

W3. Population density of settlements which lie within a 5 km radius (distance) from the quarry site: rehabilitation simultaneity degree (I.2), air quality (I.6), water quality (I.7) and noise (I.8), visual impact (I.9) indicators are weighted in function of three density ranges:

Population density	> 100 hab/km²	20 to 100 hab/km²	< 20 hab/km²
Weight	0,5 (0,6)	0,7 (0,84)	0,9

Assessment and verification: the applicant shall provide a map and appropriate documentation to verify the population density of settlements lying within 5 km radius (distance) from the quarry border (authorised area). In the case of existing quarries and expanding settlements in the area concerned, the weight factor indicated in brackets shall be used. This does not refer to major extensions of the already authorised area of such quarries (>75 %).

W4. If the quarry interferes with surface water-bodies (average flow <5 m^3/s) there is a weight of 0,5 on both the indicators about water recycling ratio (I.1) and water quality (I.7).

Assessment and verification: the applicant shall provide appropriate documentation to show whether or not there is any interference between the quarry and the surface water-body.

(b) Extraction activity project and environmental recovery

The applicant shall include a technical report including the following documents:

- *the authorization for the extractive activity;*
- *the environmental recovery plan;*
- *the map indicating the location of the quarry;*
- *the declaration of conformity to the Directive 92/43/CEE and Directive 79/409/CEE.*

Assessment and verification: the applicant shall provide the related data and documents including a map of the area.

1.2. Extraction management (for processed products only)

The raw materials or semi-products used in the production of processed hard floor-coverings shall comply with the following requirements for the related extraction activities:

Parameter	Hurdle (to be passed)
Extraction activity project and environmental recovery	The applicant shall include a technical report including the following documents: • the authorization for the extractive activity; • the environmental recovery plan; • the map indicating the location of the quarry; • the declaration of conformity to the Directive 92/43/CEE (habitats) and Directive 79/409/CEE (birds)[6] and their subsequent amendments. In areas outside the European Community, a similar technical report is required to demonstrate compliance with the UN conservation on Biological Diversity (1992) and knowledge of the national biodiversity strategy and action plan if available.
Visual impact See Technical Appendix – A1	X%< 30

Assessment and verification: the applicant shall provide the related data and documents including a map of the area. If the extraction activity is not directly managed by the producers, the documentation shall in any case be requested to the extractor/s.

2 - RAW MATERIALS SELECTION (FOR ALL HARD COVERING PRODUCTS)

The requirements applies both to raw and to secondary or recovered materials used in the production processes. If semi-processed products (mixtures) are externally bought the suppliers are requested to comply with the normative indicated in the criteria.

[6] For detailed information see Hhttp://ec.europa.eu/environment/nature/index_en.htmH

2.1 Absence of risk phrases in raw materials

No substances or preparations that are assigned, or may be assigned at the time of application, any of the following risk phrases (or combinations thereof):

R45 (may cause cancer);

R46 (may cause heritable genetic damage);

R50 (very toxic to aquatic organisms);

R51 (toxic to aquatic organisms);

R52 (harmful to aquatic organisms);

R53 (may cause long-term adverse effects in the aquatic environment);

R60 (may impair fertility);

R61 (may cause harm to the unborn child);

as laid down in Council Directive 67/548/EEC of 27 June 1967 (Dangerous Substances Directive) on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances[7], and its subsequent amendments, and considering the Council Directive 1999/45/EC (Dangerous Preparations Directive),may be added to the raw materials.

Anyway the use of any dangerous substances prohibited at EU level is banned.

Due to the environmental advantages of the recycling of materials, these criteria do not apply to the quota of closed-loop recycled materials used by the process and as defined in Appendix A2.

Assessment and verification: in terms of chemical and mineralogical analysis, the material formulation shall be provided by the applicant together with a declaration of compliance with the abovementioned criteria.

2.2 Limitation of the presence of some substances in the additives (for glazed tiles only)

[7] (1) OJ 196, 16.8.1967, p. 1.

Where lead, cadmium and antimony (or any of their compounds) are used in the additives, their content shall not exceed the following specific limits:

Parameter	Hurdle (% in weight of the glazes)
Lead	0,5
Cadmium	0,1
Antimony	0,25

Assessment and verification: the applicant shall provide a declaration of compliance with the abovementioned limits.

2.3 Limitation of the presence of asbestos and polyester resins in the materials

No asbestos shall be present in the raw materials used for natural and processed products, as laid down in the EU Directive 1999/77/EC.

The use of polyester resins in the production shall be limited by 10 % of the total weight of raw materials.

Assessment and verification: the applicant shall provide a declaration of compliance with the criteria.

3 - FINISHING OPERATIONS (FOR NATURAL PRODUCTS ONLY)

Finishing operations on natural products shall be made according to the following requirements:

Parameter	Hurdle (to pass)	Test method
Particulate emission to air	PM10 < 150 µg/Nm³	EN 12341
Styrene emission to air	< 210 mg/Nm³	
Water recycling ratio	Recycling ratio = $\frac{\text{Waste water recycled}}{\text{Total water exits the process}} \cdot 100 \geq 90\ \%$	Technical Appendix — A3
Suspended solid emission to water	< 40 mg/l	ISO 5667-17
Cd emission to water	< 0,015 mg/l	ISO 8288
Cr(VI) emission to water	< 0,15 mg/l	ISO 11083
Fe emission to water	< 1,5 mg/l	ISO 6332
Pb emission to water	< 0,15 mg/l	ISO 8288

Assessment and verification: the applicant shall provide the corresponding analysis and test reports for each emission parameter measured at all emission points. Where no test method is specified, or is mentioned as being for use in verification or monitoring, competent bodies should rely as appropriate on declarations and documentation provided by the applicant and/or independent verifications.

4 – PRODUCTION PROCESS (FOR NATURAL PRODUCTS ONLY)

4.1. Energy consumption

The energy consumption shall be calculated as process energy requirement (PER) for agglomerated stones and terrazzo tiles or as energy requirement for firing (ERF) for ceramic tiles and clay tiles.

A. Process energy requirement (PER) limit

The process energy requirement (PER) for agglomerated stones and terrazzo tiles manufacturing processes shall not exceed:

	Hurdle (MJ/m^2)	Test method
Agglomerated stones	100	Technical appendix –A4
Terrazzo tiles	**60**	Technical appendix –A4

Note: all the hurdles are expressed in MJ per square metre of final product ready to be sold. This criterion does not apply to concrete paving units or to the firing stage for tracery (decoration).

Assessment and verification: the applicant shall calculate the PER according to the Technical Appendix — A4 instructions and provide the related results and supporting documentation.

B. Energy requirement for firing (ERF) limit

The energy requirement for firing (ERF) stages for ceramic tiles and clay tiles shall not exceed:

	Hurdle (MJ/kg)	Test method
Ceramic and Clay tiles	**3,5 MJ/kg**	Technical appendix –A4

Note: all the hurdles are expressed in MJ per kg of final product ready to be sold. This criterion does not apply to concrete paving units or to the firing stage for tracery (decoration).

Assessment and verification: the applicant shall calculate the ERF according to the Technical Appendix — A4 instructions and provide the related results and supporting documentation.

4.2. Water consumption and use

The waste water produced by the processes included in the production chain shall reach a recycling ratio of at least 90%. The recycling ratio shall be calculated as the ratio between the waste water recycled or recovered by applying a combination of process optimisation measures and process waste water treatment systems, internally or externally at the plant, and the total water that leaves the process, as defined in the Technical Appendix — A3.

At least 50% of water consumption should be derived from the rate of waste water recycled.

Assessment and verification: the applicant shall provide the calculation of the recycling ratio including raw data on total waste water produced, water recycled and the quantity and source of virgin water used in the process. The percentage of recovery refers only to processed waste water and the amount of "drainage water" has not to be considered.

4.3. Emissions to air

Agglomerated stones

The emissions to air for the following parameters for the whole manufacturing process shall not exceed:

Parameters	Hurdle (mg/m^2)	Test Method
Particulate matter *(Dust)*	300	EN 13284-1
Nitrogen oxides *(as NO_x)*	1.200	EN 14792
Sulphur dioxides *(SO_2)*	850	EN 14791
Styrene	2.000	-

Assessment and verification: the applicant shall provide appropriate documentation and test reports for each emission parameter mentioned above, following the indications of the Technical Appendix — A5. Where no testing method is specified, or is mentioned as being for use in verification or monitoring, competent bodies should rely, as appropriate, on declarations and documentation provided by the applicant and/or independent verifications.

Ceramic tiles

The total emissions to air of particulates for pressing, glazing and spray drying ('cold emissions') shall not exceed 5 g/m^2.

Assessment and verification: the applicant shall provide appropriate documentation and test reports, following the indications of the Technical Appendix — A5.

The emissions to air for the firing stage only shall not exceed:

Parameters	Hurdle (mg/m^2)	Test Method
Particulate matter (Dust)	200	EN 13284
Fluorides (as HF)	200	ISO 15713
Nitrogen oxides *(as NO_x)*	2.500	EN 14792
Sulphur dioxides *(SO_2)*	1.500	EN 14791

Assessment and verification: the applicant shall provide appropriate documentation and test reports for each emission parameter mentioned above, following the indications of the Technical Appendix — A5.

Clay tiles

The emissions to air for the following parameters for the clay tiles' firing stage shall not exceed:

Parameters	Hurdle (mg/m^2)	Test Method
Particulate matter (Dust)	250	EN 13284
Fluorides (as HF)	200	ISO 15713
Nitrogen oxides *(as NO_x)*	3.000	EN 14792
Sulphur dioxides *(SO_2)*	2.000	EN 14791

Assessment and verification: The applicant shall provide appropriate documentation and test reports for each emission parameter mentioned above, following the indications of the Technical Appendix — A5.

Terrazzo tiles and concrete paving units

The emissions to air for the following parameters for the whole manufacturing process shall not exceed:

Parameters	Hurdle (mg/m^2)	Test Method
Particulate matter (Dust)	300	EN 13284
Nitrogen oxides *(as NO_x)*	2.000	EN 14792
Sulphur dioxides *(SO_2)*	1.500	EN 14791

Assessment and verification: the applicant shall provide appropriate documentation and test reports for each emission parameter mentioned above, following the indications of the technical Appendix — A5.

4.4. Emissions to water

After waste water treatment, whether on-site or off-site, the following parameters shall not exceed the following limits:

Parameter	**Current Hurdle**	**Test methods**
Suspended solid emission to water	40 mg/l	ISO 5667-17
Cd emission to water	0,015 mg/l	ISO 8288
Cr(VI) emission to water	0,15 mg/l	ISO 11083
Fe emission to water	1,5 mg/l	ISO 6332
Pb emission to water	0,15 mg/l	ISO 8288

Assessment and verification: the applicant shall provide appropriate documentation and test reports showing compliance with this criterion.

4.5. Cement

The use of raw materials for cement production shall be consistent with extraction management for processed products requirements (Criterion 1.2).

Those products that use cement in the production process shall provide the following information:

- cement included in any product shall be produced using not more than 3 800 MJ/t of process energy requirement (PER), calculated as explained in the Technical Appendix — A4,
- the cement included in any product shall be produced respecting the following air emission limits:

Parameter	Current Hurdle (g/t)	Test methods
Dust	65	EN 13284-1
SO_2	350	EN 14791
NO_x	900	EN 14792

Assessment and verification: the applicant shall provide the relevant test reports and documentation related to the PER and the air emissions deriving from the cement production.

5 - WASTE MANAGEMENT

All plants involved in the production of the product shall have a system for handling the waste and residual products deriving from the production of the product. The system shall be documented and explained in the application and shall at least include information on the following three items:

- procedures for separating and using recyclable materials from the waste stream,
- procedures for recovering materials for other uses,
- procedures for handling and disposing of hazardous waste.

Assessment and verification: The applicant shall provide appropriate documentation.

5.1. Waste management (for natural products only)

The applicant shall provide appropriate documentation about waste management deriving from quarrying and from finishing operation. How the waste are managed and the re-use of by-products (sawing included) have to be declared.

Assessment and verification: the applicant shall provide a declaration of conformity whit the requirement, in accordance with the Directive 2006/21/CEE of 15/03/2006.

5.2. Recovery of waste (for processed products only)

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 include 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.

At least 70 % (by weight) of the total waste generated by the process or the processes shall be recovered according to the general terms and definitions established by Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste[8].

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.

6 - USE PHASE

6.1. Radioactivity

The emissions to air for the following parameters shall not exceed in the final product:

Parameter	EU Hurdle	Test methods
Iγ	2	RP 112
Iα	1	

[8] OJ L 78, 26.3.1991, p. 32.

Assessment and verification: the applicant shall provide a declaration of conformity whit the limits imposed in the requirement, using the following test method: RP 112 - *Radiological protection principles concerning the Natural Radioactivity of Building Materials*.

6.2. Release of dangerous substances (glazed tiles only)

In order to control the potential release of dangerous substances in the use phase and at the end of the glazed tile's life, the products shall be verified according to the EN ISO 10545-15 test. The following limits shall not be exceeded:

Parameter	Hurdle (mg/m^2)	Testing method
Pb	80	ISO 10545-15
Cd	7	ISO 10545-15

Assessment and verification: the applicant shall provide an analysis and test reports with regard to the emission parameters mentioned above. This shall include a declaration of conformity of the product with the requirements of Council Directive 89/106/EEC of 21 December 1988[9] on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products and with relevant harmonised standards created by CEN once published in the Official Journal of the European Communities.

7 - PACKAGING

Packaging used for the final product should be multi-use systems or be made out of 100% recycled materials with a take back opportunity for recycling. Halogenated plastics should be excluded for use as packaging materials

Assessment and verification: a sample of the product packaging shall be provided on application, together with a corresponding declaration of compliance with this criterion.

8 - 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 or in-house test procedures.

[9] OJ L 40, 11.2.1989, p. 12.

An indication of the kind of use for which the product is fit for use has to be clearly indicated: wall, floor or wall/floor if suitable for both purposes.

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.

9. 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.

10. INFORMATION APPEARING ON THE ECO-LABEL

Box 2 of the Eco-label shall contain the following text:

Natural products:

- reduced impact of extraction on habitats and natural resources,
- limited emission from finishing operations,
- improved consumer information and waste management.

Processed products:

- — reduced energy consumption of production processes,
- — reduced emissions to air and water,
- — improved consumer information and waste management.

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

TECHNICAL APPENDIX
FOR HARD COVERINGS

The applicant shall provide all the required information calculated, measured or tested for the period immediately before the application. Measurements shall be representative for the respective series of testing and it should be consistent for all parts of the application as appropriate.

A1. RAW MATERIAL EXTRACTION — INDICATORS AND WEIGHTS DEFINITIONS

Confined waterbed

The expression 'confined waterbed' identifies an artesian waterbed.

Average flow of the surface water-bodies

The average flow of the watercourse that interferes with the quarry shall be calculated taking into account the authorised area of the considered quarry. The calculation shall be made multiplying the section of the water body by the velocity of the water. The values shall be representative of at least 12 months.

Indicator description

I.1. Water recycling ratio

See A3.

I.2. Rehabilitation simultaneity degree

The calculation of I.2 consists of the measurement of the compromised area, which includes quarry front and active dump areas, and of the authorised area. These areas should be measured during operating activities.

I.3. Materials recovery

The calculation of I.3 consists of the evaluation of commercial material and of the total volume yearly excavated. Commercial material refers to the basis of utilisable stone consisting of the block the shapeless pieces, the rock and everything that is sold by the quarry and does not go to landfills.

I.4. Natural resource appreciation

The calculation of I.4 consists of the evaluation of the usable material and of the total volume extracted yearly. Usable material refers to all the volume which is not destined for dumps: for example commercial blocks, aggregate materials and everything else suitable for further processing and use.

I.5. Working conditions of operating equipment

The calculation of I.5 consists of the evaluation of the total number of hours worked by a machine for productive activities and its division by the yearly production (m3) of usable material. Usable material refers to all the volume which is not destined to dumps: for example commercial blocks, aggregate materials and everything else suitable for further appreciation. If more than one excavator or wheel loader is present in the quarry, the highest number of worked hours shall be taken into consideration.

I.6. Air quality

This indicator is described in Council Directive 1999/30/EC of 22 April 1999 relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air[10]. The calculation of I.6 consists of the measurement, along the border of quarry area, of PM 10 suspended particles based on the specific requirements of the test method and the general provisions of the Council Directive (PM 10 are defined in Article 2(11)). The test method is defined in EN 12341.

I.7. Water quality

This indicator considers the total emissions of suspended solids after treatment on surface water flowing out of the quarry site. The calculation of I.7 consists of the measurement of total suspended solids using the test method reported in ISO 5667-17.

I.8. Noise

This indicator considers the noise level recorded along the border of the quarry area. Non impulsive noises are to be measured. The calculation of I.8 consists in the measurement of the noise using the test method reported in ISO 1996-1.

[10] OJ L 163, 29.6.1999, p. 41.

I.9. Visual impact

The calculation of visual impact lies in tracing cross sections passing through the quarry front and other external 'visual points', which are important to determine the visual impact (for example either from nearby towns or from frequented places or major roads, etc.). The calculation of the final score, measured as a percentage, shall be taken from the highest value of originally calculated values (worst case situation). A short explanation for the finally chosen 'visual point' should be submitted to the Competent Body. From each visual point (P), the 'bottom radius' is traced, tangent to the topographic surface and intercepting the lowest point of the 'visible quarry area'. The visible quarry area is regarded as the area where the excavation is carried out or where there is an active dump. Already rehabilitated areas (both in front area and dumps) need not be considered. From the same visual point a second radius (called 'top radius') is traced, intercepting the highest point of the quarry front. The top radius and bottom radius allow the identification on the section of the quarry of the limits of the height of the visible front (the vertical distance from top to bottom radius matching the front). The calculation could be made on the basis of the quarry project. These geometric data are put into the following formula and the result is the quotient of visual impact of the quarry affecting a specific visual point.

$$x\,\% = \frac{h^2}{(L \tan 30°)^2} \cdot 100$$

where (Figure A1):

h = vertical height of front visible from P visual point (in meters);

L = horizontal distance between the worst P and the front (in meters);

tan 30° = tangent of the average angle of the human eye vision cone;

x % = percent of visual impact.

The term h^2 represents the base surface of the quarry visibility cone, while the term $(L \tan 30°)^2$ represents the base surface of the average visual cone of human eye.

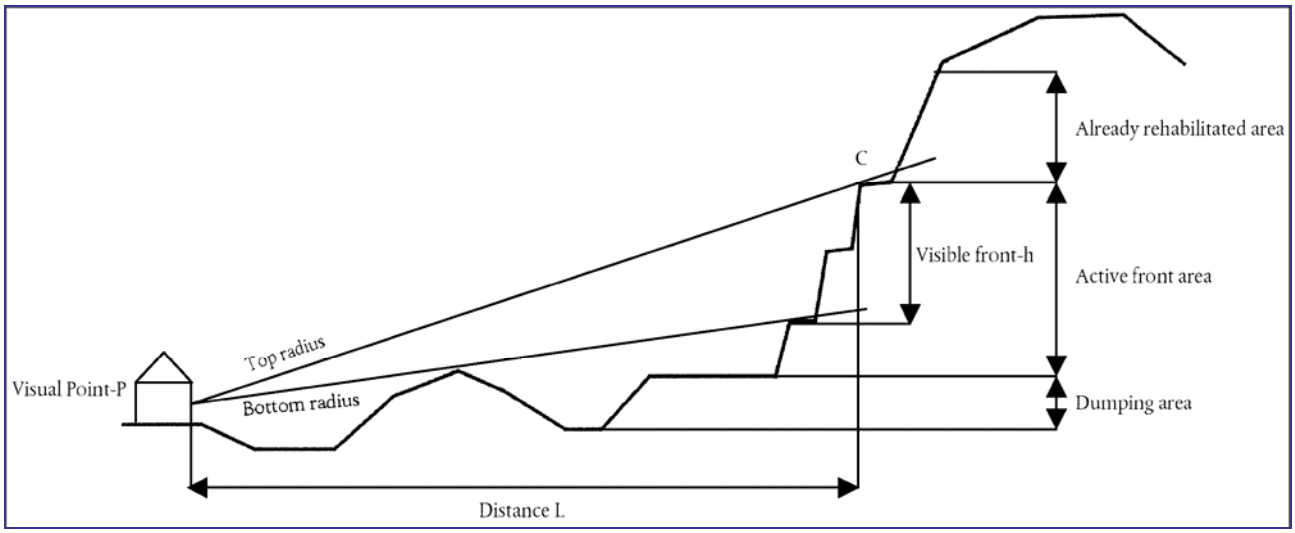

Figure A1: Graphical definition of the visual impact indicator

The calculation of the score shall consider the highest value among the calculated values.

Weight description

W2. Soil protection/land capability classification

According to the European Soil Bureau's indication, land is graded on the basis of its potentialities and the severity of its

limitations for crop growth into eight capability classes. An indicative description of the classes is as follows:

- Class I soils have slight limitations that restrict their use,
- Class II soils have moderate limitations that reduce the choice of plants or require moderate conservation practices,
- Class III soils have severe limitations that reduce the choice of plants or require special conservation practices, or both,
- Class IV soils have very severe limitations that restrict the choice of plants or require very careful management, or both,
- Class V soils have little or no hazard of erosion but have other limitations, impractical to remove, that limit their use mainly to pasture, range, forestland, or wildlife food and cover,
- Class VI soils have severe limitations that make them generally unsuited to cultivation and that limit their use mainly to pasture, range, forestland, or wildlife food and cover,

- Class VII soils have very severe limitations that make them unsuited to cultivation and that restrict their use mainly to grazing, forestland, or wildlife,

- Class VIII soils and miscellaneous areas have limitations that preclude their use for commercial plant production and limit their use to recreation, wildlife, or water supply or for aesthetic purposes.

A2. RAW MATERIALS SELECTION

A closed-loop recycled material is defined as a material that is extracted from the production system and is returned to the same production system, eventually after a recycling treatment.

A3. WATER RECYCLING RATIO

The calculation of the water recycling ratio shall be consistent with the following formula based on the flows highlighted in Figure A2.

$$\text{Recycling ratio} = \frac{\text{Waste water recycled}}{\text{Total water exits the process}} \cdot 100 = \frac{R}{W1} \cdot 100$$

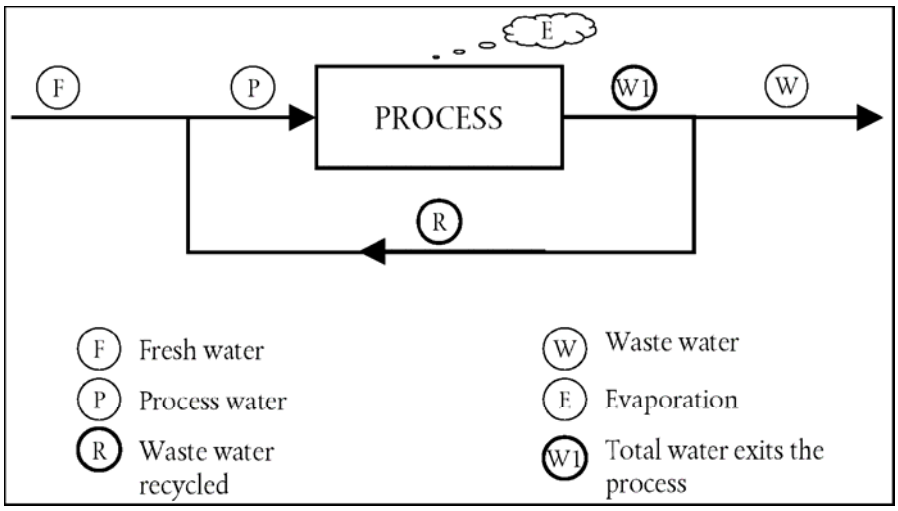

Figure A2: Water flow scheme that shall be used to calculate Water Recycling Ratio[11]

For waste water is meant only the water used in processing plants, not comprehensive of the fresh water coming from rain and subsoil water.

[11] *W means the waste water discharged into the environment.*

A4. ENERGY CONSUMPTION CALCULATION (PER, ERF)

When providing a calculation of process energy requirement (PER) or energy requirement for firing (ERF), the correct energy carriers shall be taken into account for the entire plant or for the firing stage only. Gross calorific values (high heat value) of fuels shall be used to convert energy units to MJ (Table A1). In case of use of other fuels, the calorific value used for the calculation shall be mentioned. Electricity means net imported electricity coming from the grid and internal generation of electricity measured as electric power.

Evaluation of PER for agglomerated stone production shall consider all energy flows entering the production plant both as fuels and electricity.

Evaluation of PER for terrazzo tiles production must consider all energy flows entering the production plant both as fuels and electricity.

Evaluation of ERF for ceramic tile production shall consider all energy flows entering all the kilns as fuels for the firing stage.

Evaluation of ERF for clay tile production shall consider all energy flows entering all the kilns as fuels for the firing stage.

Evaluation of PER for cement production shall consider all energy flows entering the production system both as fuels and electricity.

Table A1: Table for calculation of PER or ERF (see text for explanations)

Production period	**Days**	**From**	**To**			
***Production (kg)**						
Fuel	**Quantity**	**Units**	**Conversion factor**	**Energy (MJ)**	**Emission factor ($g\ CO_2/\ MJ$)**	**CO_2 emissions**
Natural gas		kg	54,1		56,1	
Natural gas		Nm^3	38,8		56,1	
Butane		kg	49,3		76	
Kerosene		kg	46,5		71,9	
Gasoline		kg	52,7		69,3	
Diesel		kg	44,6		74,1	

Production period	**Days**	**From**	**To**			
***Production (kg)**						
Fuel	**Quantity**	**Units**	**Conversion factor**	**Energy (MJ)**	**Emission factor ($g\ CO_2/\ MJ$)**	**CO_2 emissions**
Gas oil		kg	45,2		84	
Heavy Fuel oil		kg	42,7		87	
Dry Steam Coal		kg	30,6		95	
Anthracite		kg	29,7		98,3	
Charcoal		kg	33,7		94,6	
Industrial Coke		kg	27,9		108,2	
Electricity (from net)		kWh	3,6		400	
Total energy						
Specific energy consumption (MJ/*kg of product)						
Total CO_2 emissions (g)						
Specific CO_2 emissions (CO_2/*kg of product)						

A5. EMISSIONS TO AIR (FOR PROCESSED PRODUCTS ONLY)

The air pollutant emission factors shall be calculated as follow:

1. the concentration in the exhaust gas emitted to the environment of each parameter considered in the tables shall be calculated;
2. the measurements used for the calculation must be made following the testing methods indicated in the tables;
3. the samplings shall be representative of the considered production.

WOOD BASED FLOOR COVERINGS

CRITERIA

1. RAW MATERIALS

1.1 Sustainable forest management (for solid wood only)

(a) All virgin solid wood from forests must originate from forests that are managed so as to implement the principles and measures aimed at certifying sustainable forest management.

(b) At least 50% of the virgin solid wood 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.

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

- For virgin solid wood from certified sustainably managed forests the applicant shall provide the appropriate certificate(s) together with supporting documentation showing that the certification scheme correctly fulfils the principles and measures of sustainable forest management;

- For virgin solid wood from uncertified sustainably managed forests, the applicant and/or his supplier shall provide the appropriate declarations, licence, code of conduct or statement, verifying that the requirements of criterion 1.1 are met.

1.2 Sustainable forest management (for wood based coverings and laminates only)

At least 20% of the virgin solid wood 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 a Forestry Strategy for the EU and further development.

It is proposed to require the control of the chain of custody as proof of supply of sustainable forestry resources. The manufacturer shall provide evidence of commitment to a certificate of chain of custody (PEFC, FSC or equivalent): traceability procedure, letter of application for membership at one of systems, letter of control chain request.

Assessment and verification: the applicant shall indicate types, quantities and origins of the wood used in the production of wood-based materials. The origins of virgin wood (e.g.: sawdust, chips, fibres or forest slugs) shall be indicated with sufficient precision to allow checks, where appropriate.

- For virgin solid wood from certified sustainably managed forests the applicant shall provide the appropriate certificate(s) together with supporting documentation showing that the certification scheme correctly fulfils the principles and measures of sustainable forest management.

- For virgin solid wood from uncertified sustainably managed forests, the applicant and/or his supplier shall provide the appropriate declarations, charter, code of conduct or statement, verifying that the requirements of criterion 1.2 are met.

1.3 Recycled wood materials (only for laminates flooring)

At least 5% in weight of the total dry raw materials used for the panel board production shall be woodchip or recycled wood secondary material.

The substances contained in the recycled material shall comply with the following limits[12]:

[12] European Panel Federation (2002) *EPF Standard for Delivery Conditions of Recycled Wood*. EPF

Elements and compounds	**Limit values** (mg/kg of total dry panel)	**Test method** (yet to be specified)
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 is used in the production of wood based materials. In addition, test results shall be provided to verify compliance with limit values as laid down in table 3.3.

2. USE OF DANGEROUS SUBSTANCES

2.1 Dangerous substances for the raw wood treatments

Substances used for preserving timber shall comply with Directive 94/414/CE of 15 July 1991, concerning the marketing of plant protection products.

Assessment and verification: a declaration of conformity whit the EU Directive 94/414/CE shall be provided, showing that the substances used are included in that allowed by the directive.

2.2 Dangerous substances in the transformation processes

(a) Substances used for wood preservation in the production process should comply with the Directive 98/8/CE of 16 February 1998 concerning the placing of biocide products on the market.

Assessment and verification: a declaration of conformity whit the EU Directive 98/8/CE shall be provided.

(b) Wood used in wood based materials shall not be treated with substances or preparation that are assigned, or may be assigned at the time of application, any of the following risk phrases (or combinations thereof):

R40 (limited evidence of a carcinogenic effect);

R45 (may cause cancer);

R46 (may cause heritable genetic damage);

R49 (may cause cancer by inhalation);

R50 (very toxic to aquatic organisms);

R51 (toxic to aquatic organisms);

R52 (harmful to aquatic organisms);

R53 (may cause long-term adverse effects in the aquatic environment);

R54 (Toxic to flora);

R55 (Toxic to fauna);

R56 (Toxic to soil organisms);

R57 (Toxic to bees);

R58 (May cause long-term adverse effects in the environment);

R59 (Dangerous for the ozone layer);

R60 (may impair fertility);

R61 (may cause harm to the unborn child);

R62 (possible risk of impaired fertility);

R63 (Possible risk of harm to the unborn child);

R68 (Possible risk of irreversible effects);

as laid down in Directives 67/548/EEC, 1999/45/EC and their amendments.

(b) Raw materials classified as allergenic that are added to the floor covering must not exceed levels of 0,1% by weight in the finished floor covering.

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

Cadmium (Cd), lead (Pb) and mercury (Hg) must not be actively added to the floor covering.

Assessment and verification: the applicant shall provide appropriate declarations verifying that the above requirements (a), (b), (c) are respect. For the chemical products used in the production of wood-based materials a MSDS 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. 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 in accordance with the Directive 1999/45/EG shall not exceed 14 g/m^2 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%.

Formaldehyde

Formaldehyde emissions from substances and preparations for surface treatment liberating formaldehyde shall be less than 0.1 ppm.

Assessment and verification: the applicant and/or his supplier shall provide a declaration that the above requirement is met, together with information on the formulation of the surface treatment .

Adhesives

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

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.

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.

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 not exceed the following limits (P= scoring point):

Product Familiy	*Hurdle (P)*
Wood floorings and Other wood based floorings	10,5
Laminates floorings	11,5

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

3.2 Emission to air

Wood dust

The wood-dust emissions present in the exhaust air released by wood-machining equipment shall be less than or equal to 10 mg/m^3 and less than or equal to 50 mg/m^3 in the exhaust air released by splints or fibre dryers.

Assessment and verification: the applicant and/or his supplier shall provide a declaration that the above requirement is met, together with information on the formulation of the surface treatment (test method EN 13284).

VOC

VOC emissions are currently under investigation.

GHG emissions

An additional criterion concerning the introduction of a limit to the GHG emissions from the productive process is under investigation: in few months there will be the possibility of using a "CO_2 measurement toolkit" currently under development by the European Community.

3.3 Waste management

The total amount of waste generated by the process or the processes shall be recovered according to the general terms and definitions established by Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste[13].

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 include 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.

[13] OJ L 78, 26.3.1991, p. 32.

4. USE PHASE

4.1 Release of dangerous substances

Formaldehyde release

A floor covering that has additives that contain formaldehyde or other substances that release formaldehyde must fulfil requirement (a) or (b):

(a) Testing of formaldehyde emissions from the finished floor covering.

Emissions to air must be less than 0.13 mg/ m^3 air.

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

(b) For floor coverings that contain chipboard or fibreboard, the following limits must be fulfilled:

Test	*Hurdle (mg/100g)*
Single test reading	≤ 8
Six-month average	≤ 6,5

Assessment and verification: the applicant shall provide appropriate documentation based on the testing method according to the "perforator method" described in EN 120. Fore more specific information see Technical Appendix – A2.

5. PACKAGING

Packaging used should be multi use systems or be made out of 100% recycled materials with a take back opportunity for recycling. Halogenated plastics should be excluded for use as packaging materials.

All materials shall be easily separable in recyclable parts consisting of one material (e.g. cardboard, paper, textile, etc…).

Assessment and verification: a sample of the product packaging shall be provided on application, together with a corresponding declaration of compliance with this criterion.

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 or in-house test 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;
- limited pollutant emissions to air;
- no risk to health in the living environment;
- reduced pollutant hazards in the wastes;
- durability, safety and fitness for use.

TECHNICAL APPENDIX

WOOD BASED FLOOR 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 floor covering. This means, for example, that the energy calculation for wood-based products starts from the wooden logs.

For synthetic (non-renewable) raw materials, the calculations start from the fabrication of the product used. The calculation shall not include the energy content of the raw material (nda: feedstock energy).

The energy calculation shall include at least 95% by weight of the raw materials' energy consumption. The energy required to manufacture adhesives and varnish shall not be included in the calculations.

The functional units **kWh/m^2**, though calculations may also be made in MJ/m^2 (1 kWh=3.6 MJ).

The energy contents of various fuels are given.

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.

Electricity consumption refers to electricity purchased from an external supplier.

Environmental parameter	**Requirement**
A = Wood from certified, sustainable forest (%)	Min. 30%
B = Proportion of recycled wood raw materials (%)	-
C = Proportion of renewable fuels (%)	-
D = Electricity consumption (kWh/m^2)	Max. 20 kWh/m^2
E = Fuel consumption (kWh/m^2)	Max. 50 kWh/m^2

$$P = \frac{A}{25} + \frac{B}{25} + \frac{C}{25} + (4 - \frac{D}{5}) + (4 - \frac{E}{12,5})$$

Table A1: Table for calculating fuel consumption.

Production period (1 year)	**Days**	**From**	**To**		
Fuel	**Quantity**	**Units**	**Conversion factor**	**Energy (MJ)**	**Energy (kWh)[14]**
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)					

A2. FORMALDEHYDE TEST METHODS

The content of formaldehyde can be determined using the perforator method described in EN 120.

The perforator method provides a correlation between the content of free formaldehyde, expressed in mg/100 g, and the emission level, expressed in ppm or mg/m3.

The requirements set out in criterion 4.1 apply for wooden panels with a moisture content (H) of 6.5% .

If the wooden panels have a different moisture content that is between 3% and 10%, the perforator value shall be multiplied by a correction factor F which is calculated as follows:

For chipboard: F = -0.133H + 1.86 For MDF: F = -0.121 H + 1.78

[14] 1kWh = 3,6 MJ

TEXTILE FLOOR COVERINGS

CRITERIA

1. RAW MATERIALS

Generic materials requirements

The materials used for the manufacture of the product shall not contain substances or preparation that are assigned, or may be assigned at the time of application, any of the following risk phrases (or combinations thereof):

R40 (limited evidence of a carcinogenic effect);

R45 (may cause cancer);

R46 (may cause heritable genetic damage);

R49 (may cause cancer by inhalation);

R50 (very toxic to aquatic organisms);

R51 (toxic to aquatic organisms);

R52 (harmful to aquatic organisms);

R53 (may cause long-term adverse effects in the aquatic environment);

R54 (Toxic to flora);

R55 (Toxic to fauna);

R56 (Toxic to soil organisms);

R57 (Toxic to bees);

R58 (May cause long-term adverse effects in the environment);

R59 (Dangerous for the ozone layer);

R60 (may impair fertility);

R61 (may cause harm to the unborn child);

R62 (possible risk of impaired fertility);

R63 (Possible risk of harm to the unborn child);

R68 (Possible risk of irreversible effects);

as laid down in Directives 67/548/EEC, 1999/45/EC and their amendments.

Assessment and verification: in terms of chemical analysis, the materials typology and formulation shall be provided by the applicant together with a declaration of compliance with the abovementioned criteria.

1.1 Textile fibres composition

(a) At least 20% by weight of the floor covering must be composed of renewable raw materials.

Note: that this requirement could exclude some products (i.e.: polyamide carpets) to be awarded with the Ecolabel scheme.

(b) At least 10% by weight of the floor covering must be composed of recycled raw material.

Assessment and verification: a detailed description of the product and the materials which the floor covering is made, with the specification of their proportions (% by weight) shall be provided by the applicant. For "renewable raw materials" are meant those materials "*that are derived from biological materials that are continually reproduced in nature.*" For "recycled fibres" a are meant that "*fibres originating only from cuttings from textile and clothing manufacturers or from post-consumer waste (textile or otherwise)*".

1.2 Textile fibres chemical substances

If the origin of the fibres are recycled the criteria set in this section does not apply.

With regard to the presence of dangerous substances, there must be applied the requirements described at the point *1. Raw materials - Generic material requirements.*

Fibre-specific criteria are set in this section for wool, polyamide, polyester, polypropylene.

Wool – biocides

(a) The sum total content of the following substances shall not exceed 0,5 ppm:

Biocide	CAS no
γ-hexachlorocyclohexane (lindane)	319-84-6
α-hexachlorocyclohexane	319-85-7
β-hexachlorocyclohexane	58-89-9
δ-hexachlorocyclohexane	319-86-8
aldrin	309-00-2
dieldrin	60-57-1
endrin	72-20-8
p,p'-DDT	50-29-3
p,p'-DDD	72-54-8

(b) The sum total content of the following substances shall not exceed 2 ppm:

Biocide	CAS no
Propetamphos	31218-83-4
Diazinon	333-41-5
Dichlofenthion	97-17-6
Fenchlorphos	299-84-3
Chlorpyriphos	2921-88-2
Chlorfenvinphos	470-90-6

(c) The sum total content of the following substances shall not exceed 0,5 ppm:

Biocide	CAS no
Cyhalothrin	68085-85-8
Cybermethrin	52315-07-8
Deltamethrin	52918-63-5
Fenvalerate	51630-58-1
Flumethrin	69770-45-2

(d) The sum total content of the following substances shall not exceed 2 ppm:

Biocide	**CAS no**
Diflubenzuron	35367-38-5
Triflumuron	64628-44-0
Dicyclanil	
Cyromazine	

The test should be made on raw wool, before it comes through any wet treatment, for each lot of wool two times a year. The previous requirements (a), (b), (c), (d) are not applied, where appropriate documentation is provided, if it is proved that the farmers produces at least 75 % of the wool, together with a declaration, provided by these farmers, that the substances listed above have not been applied to the concerned fields or animals.

Assessment and verification: the applicant shall either provide the documentation indicated above or provide a test report, using the following test method: IWTO Draft Test Method 59.

Polyamide fibre

The emissions to air of N_2O during monomer production, expressed as an annual average, shall not exceed 10 g/kg of finished polyamide-6 fibres produced or 50 g/kg of polyamide-6,6 produced.

Assessment and verification: the applicant shall provide detailed documentation and/or test reports showing compliance with this criterion, together with a declaration of compliance.

Polyester

The amount of antimony in the polyester fibres shall not exceed 260 ppm. Where no antimony is used, the applicant may state 'antimony free' (or equivalent text) in the eco-label labelled product.

Assessment and verification: the applicant shall either provide a declaration of non-use or a test report using the following test method: direct determination by Atomic Absorption Spectrometry. The test shall be carried out on the raw fibre prior to any wet processing.

Polypropylene

(a) Lead-based pigments shall not be used.

Assessment and verification: the applicant shall provide a declaration of non-use.

(b) Emissions of NO_x and SO_2 from the production of PP (monomer production, polymerisation and granulation) must not exceed the following limits:

NO_x: 12 kg/ton PP

SO_2: 11 kg/ton PP

Assessment and verification : the fibre manufacturer must measure or calculate the quantities of NO_x and SO_2 emitted during PP production.

1.3 Baking agents

With regard to the presence of dangerous substances, there must be applied the requirements described at the point *1. Raw materials - Generic material requirements.*

Foam rubber (natural and synthetic latex)

The content of 1.3-butadiene must not exceed 1 mg/kg of latex.

Assessment and verification: the applicant shall provide a detailed test report for the content of 1.3 butadiene in the latex.

Foam rubber (polyurethane)

CFC, HCFC, HFC (hydrofluorocarbons) and methylene chloride must not be used for foaming.

Assessment and verification: the applicant shall provide a declaration of non use.

Vulcanized foams

Vulcanized foams shall not be used for back coating.

Assessment and verification: the applicant shall provide a declaration of non use.

2. PRODUCTION

With regard to the presence of dangerous substances, there must be applied the requirements described at the point *1. Raw materials - Generic material requirements.*

The applicant shall also comply whit the following specific requirements:

Halogens

No halogenated organic compounds may be used in the manufacture of textile floor coverings" is requested for all the National labels and the Final Draft criteria EU Ecolabel for textile products

Assessment and verification: the applicant shall provide a declaration of non use.

Flame retardants

No use is allowed of flame retardant substances or of flame retardant preparations containing more than 0,1 % by weight of substances that are assigned or may be assigned at the time of application any of the following risk phrases (or combinations thereof):

R40 (limited evidence of a carcinogenic effect),

R45 (may cause cancer),

R46 (may cause heritable genetic damage),

R49 (may cause cancer by inhalation),

R50 (very toxic to aquatic organisms),

R51 (toxic to aquatic organisms),

R52 (harmful to aquatic organisms),

R53 (may cause long-term adverse effects in the aquatic environment),

R60 (may impair fertility),

R61 (may cause harm to the unborn child),

R62 (possible risk of impaired fertility),

R63 (possible risk of harm to the unborn child),

R68 (possible risk of irreversible effects),

as laid down in Directive 67/548/EEC and its subsequent amendments.

This requirement does not apply to flame retardants that on application change their chemical nature to no longer warrant classification under any of the R-phrases listed above, and where less than 0,1 % of the flame retardant on the treated yarn or fabric remains in the form as before application.

*Assessment and verification :*the applicant shall either provide a declaration that flame retardants have not been used, or indicate which flame retardants have been used and provide documentation (such as safety data sheets) and/or declarations indicating that those flame retardants comply with this criterion.

Plasticizers

If any plasticizer substance in the manufacturing process is applied, it cannot contain phthalates.

Assessment and verification: the applicant shall provide a declaration of non use.

2.1 Auxiliaries

Alkylphenolethoxylates (APEOs), linear alkylbenzene sulfonates (LAS), bis(hydrogenated tallow alkyl) dimethyl ammonium chloride (DTDMAC), distearyl dimethyl ammonium chloride (DSDMAC), di(hardened tallow) dimethyl ammonium chloride (DHTDMAC), ethylene diamine tetra acetate (EDTA), and diethylene triamine penta acetate (DTPA) shall not be used and shall not be part of any preparations or formulations used.

Assessment and verification: the applicant shall provide a declaration of non-use.

2.2 Dyes and pigments

Azo dyes

According to Directive 2002/61/EC: the use of Azo dyes, which potentially cleave one of the aromatic amines listed below is not permitted:

4-aminobiphenyl	*(92-67-1),*
benzidine	*(92-87-5),*
4-chloro-o-toluidine	*(95-69-2),*
2-naphthylamine	*(91-59-8),*
o-aminoazotoluene	*(97-56-3),*
2-amino-4-nitrotoluene	*(99-55-8),*
p-chloroaniline	*(106-47-8),*

2,4-diaminoanisole	*(615-05-4),*
4,4'-diaminodiphenylmethane	*(101-77-9),*
3,3'-dichlorobenzidine	*(91-94-1),*
3,3'-dimethoxybenzidine	*(119-90-4),*
3,3'-dimethylbenzidine	*(119-93-7),*
3,3'-dimethyl-4,4'-diaminodiphenylmethane	*(838-88-0),*
p-cresidine	*(120-71-8),*
4,4'-methylene-bis-(2-chloroaniline)	*(101-14-4),*
4,4'-oxydianiline	*(101-80-4),*
4,4'-thiodianiline	*(139-65-1),*
o-toluidine	*(95-53-4),*
2,4-diaminotoluene	*(95-80-7),*
2,4,5-trimethylaniline	*(137-17-7),*
4-*aminoazobenzene*	*(60-09-3),*
o-anisidine	*(90-04-0).*
2,4-Xylidine	
2,6-Xylidine	

Assessment and verification: the applicant shall provide a declaration of non-use of such dyes. If the products used are awarded whit the Final Draft EU eco-label for textile products or whit Öko-Tex Standard 100, thy fulfil this requirement.

Dyes that are carcinogenic, teratogenic or reprotoxic

(a) the following dyes shall not be used:

C.I. Basic Red 9

C.I. Disperse Blue 1

C.I. Acid Red 26

C.I. Basic Violet 14

C.I. Disperse Orange 11

C. I. Direct Black 38

C. I. Direct Blue 6

C. I. Direct Red 28

C. I. Disperse Yellow 3

Assessment and verification: the applicant shall provide a declaration of non-use of such dyes. If the products used are awarded whit the EU eco-label for textile products or whit Öko-Tex Standard 100, thy fulfil this requirement.

(b) No use is allowed of dye substances or of dye preparations containing more than 0,1% by weight of substances that are assigned or may be assigned at the time of application any of the following risk phrases (or combinations thereof):

R40 (limited evidence of a carcinogenic effect),

R45 (may cause cancer),

R46 (may cause heritable genetic damage),

R49 (may cause cancer by inhalation),

R60 (may impair fertility),

R61 (may cause harm to the unborn child),

R62 (possible risk of impaired fertility),

R63 (possible risk of harm to the unborn child),

R68 (possible risk of irreversible effects),

as laid down in Council Directive 67/548/EEC of 27 June 1967 on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (1), and its subsequent amendments.

Assessment and verification: the applicant shall provide a declaration of non-use of such dyes. If the products used are awarded whit the EU eco-label for textile products or whit Öko-Tex Standard 100, thy fulfil this requirement.

Potentially sensitizing dyes

The following dyes shall only be used if the fastness to perspiration (acid and alkaline) of the dyed fibres, yarn or fabric is at least 4:

C.I. Disperse Blue 3 C.I. 61 505

C.I. Disperse Blue 7 C.I. 62 500

C.I. Disperse Blue 26 C.I. 63 305

C.I. Disperse Blue 35

C.I. Disperse Blue 102

C.I. Disperse Blue 106

C.I. Disperse Blue 124

C.I. Disperse Brown 1

C.I. Disperse Orange 1 C.I. 11 080

C.I. Disperse Orange 3 C.I. 11 005

C.I. Disperse Orange 37

C.I. Disperse Orange 76 (previously designated Orange 37)

C.I. Disperse Red 1 C.I. 11 110

C.I. Disperse Red 11 C.I. 62 015

C.I. Disperse Red 17 C.I. 11 210

C.I. Disperse Yellow 1 C.I. 10 345

C.I. Disperse Yellow 9 C.I. 10 375

C.I. Disperse Yellow 39

C.I. Disperse Yellow 49

Assessment and verification: The applicant shall either provide a declaration of non-use of these dyes or a test report using the following test method for colour fastness: ISO 105-E04 (acid and alkaline, comparison with multi-fibre fabric). If the products used are awarded whit the Final Draft EU eco-label for textile products or whit Öko-Tex Standard 100, thy fulfil this requirement.

2.3 Water emissions

Wool – biocides

After treating the scouring effluent, the final COD discharge shall not exceed 5 g/kg greasy wool. The pH of the effluent discharged to surface waters shall be between 6 and 9 (unless the pH of the receiving waters is outside this range), and the temperature shall be below 40°C (unless the temperature of the receiving water is above this value).

Assessment and verification: the applicant shall provide relevant data and test report, using the test method ISO 6060.

Waste water discharges from wet-processing

(a) Waste water from wet-processing sites (except greasy wool scouring sites) shall, when discharged after treatment (whether on-site or off-site), have a COD content of less than 20 g/kg, expressed as an annual average.

Assessment and verification: the applicant shall provide detailed documentation and test reports, using ISO 6060, showing compliance with this criterion, together with a declaration of compliance.

(b) If the effluent is treated on site and discharged directly to waters, it shall also have a pH between 6 and 9 (unless the pH of the receiving water is outside this range) and a temperature of less than 40 °C (unless the temperature of the receiving water is above this value).

Assessment and verification: The applicant shall provide documentation and test reports showing compliance with this criterion, together with a declaration of compliance.

Detergents, fabric softeners and complexing agents

At each wet-processing site, at least 95% by weight of the detergents, at least 95% by weight of fabric softeners and at least 95% by weight complexing agents used shall be sufficiently degradable or eliminable in wastewater treatment plants. At each wet-processing site, the detergents (which contain surfactants) in use shall fulfil the criteria: the surfactants meet the criteria for ultimate aerobic biodegradation. At least 95% of the other substances by weight shall be sufficiently degradable or eliminable in wastewater treatment plants.

Assessment and verification: 'sufficiently biodegradable ' means:

— if when tested with one of the methods OECD 301 A, OECD 301 E, ISO 7827, OECD 302 A, ISO 9887, OECD 302 B,

— or ISO 9888 it shows a percentage degradation of at least 70 % within 28 days, or if when tested with one of the methods OECD 301 B, ISO 9439, OECD 301 C, OECD 302 C, OECD 301 D, ISO 10707, OECD 301 F, ISO 9408, ISO 10708 or ISO 14593 it shows a percentage degradation of at least 60 % within 28 days,

— or if when tested with one of the methods OECD 303 or ISO 11733 it shows a percentage degradation of at least 80 % within 28 days,

— or, for substances for which these test methods are inapplicable, if evidence of an equivalent level of biodegradation is presented.

The applicant shall provide appropriate documentation, safety data sheets, test reports and/or declarations, indicating the test methods and results as indicated above, showing compliance with this criterion for all sizing preparations used.

Metal complex dyes

In case of cellulose dyeing, where metal complex dyes are part of the dye recipe, less than 20% of each of those metal complex dyes applied (input to the process) shall be discharged to waste water treatment (whether on-site or off-site).

In case of all other dyeing processes, where metal complex dyes are part of the dye recipe, less than 7% of each of those metal complex dyes applied (input to the process) shall be discharged to waste water treatment (whether on-site or off-site).

Assessment and verification: the applicant shall either provide a declaration of non-use or documentation and test reports using the following test methods: ISO 8288 for Cu, Ni; EN 1233 for Cr.

2.1 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 not exceed the following limits (P= scoring point):

Product Familiy	*Hurdle (P)*
Textile floor coverings	9

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

3. USE PHASE

3.1 Release of dangerous substances

The following emissions values must not to be exceeded:

	Requirements	
Substance	**Final Value 3 Days**	**Final Value 28 Days**
Total organic compounds within the retention range $C_6 – C_{16}$ (TVOC)	≤ 250 µg/m³	≤ 100 µg/m³
Total organic compounds within the retention range > $C_{16} – C_{22}$ (TSVOC)	≤ 30 µg/m³	

C substances [11]	≤ 1 µg/m³ per single value
Total VOC without LIC [12, 13]	≤ 50 µg/m³
R value	≤ 1
Formaldehyde	≤ 0.02 ppm
Other aldehydes [14]	≤ 0.02 ppm
4-Phenylcyclohexene	≤ 5 µg/m³

11: C substances are carcinogenic substances classified into Category K1 or K2 in accordance with Directive 67/548/EEC (s. footnote No. 6) or TRGS 905 (s. footnote No. 8).
12: Including non-identifiable substances;
13: LCI = Lowest Concentration of Interest cf. "Health risk assessment process for emissions of volatile organic compounds (VOC) from building products";
14: Other aldehydes which can be determined by use of the DNPH method (EN ISO 16000-3).

Assessment and verification: the applicant shall submit a test certificate according to the EN ISO 16000-9[15] which complies with this requirement. The test certificate shall be issued by a accredited laboratory.

4. PACKAGING

Packaging used should be multi use systems or be made out of 100% recycled materials with a take back opportunity for recycling. Halogenated plastics should be excluded for use as packaging materials.

All materials shall be easily separable in recyclable parts consisting of one material (e.g. cardboard, paper, textile, etc…).

Assessment and verification: a sample of the product packaging shall be provided on application, together with a corresponding declaration of compliance with this criterion.

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 or in-house test 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.

[15] EN ISO 16000 – Indoor air pollution; Part 9: Determination of the emission of VOCs from building products and furnishing. Emission test chamber method.

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:

- *hazardous and toxic substance restricted;*
- *production process energy saving;*
- *limited pollutant emissions to water;*
- *no risk to health in the living environment;*
- *reduced pollutant hazards in the wastes;*
- *durability, safety and fitness for use.*

TECHNICAL APPENDIX
FOR TEXTILE FLOORING

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 floor covering.

For synthetic (non-renewable) raw materials, the calculations start from the fabrication of the product used. The calculation shall not include the energy content of the raw material (nda: feedstock energy).

The energy calculation shall include at least 95% by weight of the raw materials' energy consumption. The energy required to manufacture adhesives and varnish shall not be included in the calculations.

The functional units **kWh/m²**, though calculations may also be made in MJ/m² (1 kWh=3.6 MJ).

The energy contents of various fuels are given.

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.

Electricity consumption refers to electricity purchased from an external supplier.

Environmental parameter	**Requirement**
A = Proportion of renewable raw materials and recycled non-renewable raw materials (%)	Min. 30%
B = Proportion of renewable fuels (%)	-
C= Electricity consumption (kWh/m^2)	Max. 20 kWh/m^2
D= Fuel consumption (kWh/m^2)	Max. 50 kWh/m^2

$$P = \frac{A}{25} + \frac{B}{25} + (4 - \frac{C}{5}) + (4 - \frac{D}{12{,}5})$$

Table A1: Table for calculating fuel consumption.

Production period (1 year)	**Days**	**From**	**To**		
Fuel	**Quantity**	**Units**	**Conversion factor**	**Energy (MJ)**	**Energy (kWh)[16]**
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)					

[16] 1kWh = 3,6 MJ