

EU Ecolabel Bed Mattresses

User Manual

EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

CONTEN	ıtsUsin	g this manual	4
Part A:	Gen	eral Information	6
1		Introduction	6
	1.1	Is my product eligible for the Ecolabel?	6
	1.2	Aims of the criteria	7
	1.3	Who can apply for the EU Ecolabel?	7
	1.4	Where do I apply?	7
	1.5	What does an application/contract cover?	8
	1.6	How do I extend or make changes to my EU Ecolabel licence?	8
	1.7	Continuous control – the responsibility of the applicant	8
	1.8	Assessment of compliance to the criteria	9
	1.9	Costs	9
2		The application process	10
	Step 1	L: ECAT registration	11
	Step 2	2: Information, testing and verification requirements	11
	Step 3	3: Compile and submit dossier and application form	11
	Step 4	1: Assessment	11
	Step 5	5: Award of licence	12
	2.1	Revision of criteria	12
	2.2	Checklist: How to apply	13
	2.3	Definitions	14
Part B:	Prod	duct Assessment and Verification	15
1		Product group criteria	15
2		Assessment and verification requirements	16



	Criterion 1: Latex roam	1/
	Criterion 2: Polyurethane (PUR) foam	22
	Criterion 3: Wire and springs	29
	Criterion 4: Coconut fibres	30
	Criterion 5: Textiles (fabrics and fibres used as mattress cover and/or filling materials)	31
	Criterion 6: Glues and adhesives	47
	Criterion 7: Flame retardants	48
	Criterion 8: Biocides	50
	Criterion 9: Plasticizers	51
	Criterion 10: Excluded or limited substances and mixtures	53
	Criterion 11: Emission of specified volatile organic compounds (SVOCs, VOCs, VVOCs) from the mattress	
	Criterion 12: Technical performance	62
	Criterion 13: Design for disassembly and recovery of materials	64
	Criterion 14: Information appearing on the EU Ecolabel	65
	Criterion 15: Additional information to consumers	66
Part C:	Application Form	67
Part D:	Declarations	72
	Appendix 1: List of main standards referred to in this User Manual	120
Part E:	Checklist	124

Ecolapel

EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Using this manual

This manual guides you through the process of applying for an EU Ecolabel, in accordance with the criteria requirements. The following symbols are used throughout:



= Notable or important information.



= Clarification of a key point or of EU Ecolabel criteria.



= Required documentation to verify compliance with criteria, including links to declarations where needed.

The manual is structured as follows:

Part A: General Information – Provides information about the EU Ecolabel (including a summary of the criteria), details of the application process, and answers to frequently asked questions about applying.

Part B: Product Assessment and Verification – Outlines the criteria for bed mattresses set out in the Commission Decision (2014/391/EU). An example from this section is shown below:

Product group criteria

Outline of documentation needed for application, to show compliance with the criteria – including link to a template declaration form

Important information

12.1 Quality

The mattress shall be designed in a way that a quality product meeting the needs of the consumer is placed on the market.

Required documentation for assessment and verification: Quality

The applicant shall provide a report describing the approach followed and the actions taken in order to ensure the quality of the product, the fulfilment of specific functional characteristics and the respect of thermo-hygrometric wellness requirements. The following aspects should be taken into consideration: research and development, selection of materials, internal testing and verification procedures for demonstrating the fulfilment of functional characteristics and the respect of thermo- hygrometric wellness requirements

Note: Thermo-hygrometric wellness requirements refer to the heat and moisture transfer properties of a mattress, which form an essential component of a mattress' function.

Version 1.0 Page 4 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Part C: Application Form – This application form should be completed by all applicants.

Part D: Declarations – These declarations are to be completed as part of the application process. The relevant sections of Part B (Product Assessment and Verification) should be referred to when completing these declarations. An example declaration is shown below:

Title and reference to relevant criteria	7				
Declaration, including sections to be completed	3.1(a).·Declaration:·Criteria3.1·Wire·and·Springs:·Degreasing· Declaration·(Producer)·Duplicate·for·each·				
by the applicant and/or supplier(s).	As the manufacturer/importer/retailer of wire and/or springs for bed mattresses that comply with the EU- Ecolabel, I, the undersigned,				
Information to be completed by the person	Signature-of-person-bearing-legal- responsibility:1 ¤	п			
responsible for this declaration	Company·Name·(of·the·foam·producers)·in- CAPITALS:¤	п			
	Date:¤				
	Company-Stamp:¶	1			

Please read this manual all the way through before completing and submitting the application form or any other documentation.

Version 1.0 Page 5 of 131





Part A: General Information

Introduction 1

This User Manual¹ is for guidance only and is designed to help you apply for the EU Ecolabel for bed mattresses. It includes an outline of all data, tests and documentation that are required to meet the EU Ecolabel criteria for this product group.

mmission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

The basis for the manual is the Commission Decision of 23 June 2014 establishing the ecological criteria for the award of the EU Ecolabel for bed mattresses (2014/391/EU). A copy of the criteria can be found at:



http://ec.europa.eu/environment/ecolabel/products-groups-and-criteria.html



Please read the criteria document carefully before filling in the application form!

Is my product eligible for the Ecolabel? 1.1

The product group 'bed mattresses' represents a group of products which consist of a cloth cover that is filled with materials and that can be placed on an existing supporting bed structure or designed for free standing in order to provide a surface to sleep or rest upon for indoor use. The lists below show examples products which are eligible for the EU Ecolabel, and a list of those that are excluded, and for which you cannot apply.

- 1. Examples of 'bed mattresses' include products that are externally covered with a cloth and that usually consist of at least one of the following materials;
 - a. **Latex**.
 - b. Polyurethane foam.
 - Metal springs.

Other materials, such as wool, cotton, polyester, coconut fibre, and felt may also present as mattress fillings.

- 2. The following products are be **excluded** from the product group "bed mattresses":
 - a. Wooden and upholstered bed bases
 - b. Inflatable mattresses
 - c. Mattresses classified under Council Directive 93/42/EEC concerning medical devices.²

Version 1.0 Page 6 of 131

¹ This User Manual is for guidance only; it does not have any legal standing and does not, in any way, replace the Commission Decision or any relevant legislation. In case of doubt on specific points in the Manual, please refer directly to the national competent body..

 $^{^2}$ Council Directive 93/42/EEC of 14 June 1993 concerning medical devices (OJ L 169, 12.7.1993, p.1).



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

For the purposes of the Ecolabel criteria, cot mattresses are specifically defined as a mattress with a length shorter than 1400mm.

1.2 Aims of the criteria

The criteria for the Ecolabel for bed mattresses have been agreed by taking into account various impacts at each step of the product's life. The criteria are set out in the formal Commission Decision of 23 June 2014 (2014/391/EU).

The criteria are set at levels that promote products which have a lower environmental impact. The criteria in particular aim to:

- Promote the use of sustainably produced materials
- Limit the use of hazardous compounds and the levels of hazardous residues and the contribution of mattresses to indoor air pollution
- Promote a durable and high-quality product that is easy to repair and disassemble..

The criteria will be valid until 23rd June 2018.

1.3 Who can apply for the EU Ecolabel?

Manufacturers, importers and service providers may submit applications for the EU Ecolabel. Traders and retailers may also apply, but may only submit applications for products marketed under their own brand names.

1.4 Where do I apply?

EU Ecolabel applications are made via a single application that covers all of the European Economic Area (EEA). Details about the EEA are available here:



http://eeas.europa.eu/eea/index en.htm

Every Member State nominates an organisation to act as a "Competent Body", responsible for assessing applications. The choice of which Member State's Competent Body you should apply to is determined by where your product originates. If your product originates outside of the EEA, you should apply to the EEA Member State where the product is (or is about to be) placed on sale.

All EEA Member States assess applications against the same criteria, but individual Member States have slightly different procedures and fee levels. For contact details for each Member State's Competent Body, please visit:

Version 1.0 Page 7 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)



http://ec.europa.eu/environment/ecolabel/competent-bodies.html

1.5 What does an application/contract cover?

An application for an EU Ecolabel covers a product, regardless of how many different names or brands are used for that product. Therefore, the applicant must report all the trade names and identification or reference numbers of the product(s) in question during the process of application. The formulation, including all chemical substances and mixtures used in the product, must be submitted as part of the application.

1.6 How do I extend or make changes to my EU Ecolabel licence?

Once the EU Ecolabel has been awarded, if the contract holder wants to extend the range of products covered by the licence, the following conditions apply:

- Extension with new commercial identification/reference names, which do not affect compliance with the criteria: In this case the relevant information should be sent to the Competent Body. After scrutiny, and if accepted, the Competent Body will issue a revised certificate with the new/additional commercial references/trade names added.
- Extension with new technical characteristics which affect compliance with the criteria (for example new materials): These must be approved by the Competent Body prior to use. A request for extension must be sent to the Competent Body together with all the necessary supporting documentation as required in the Assessment and Verification section(s) of the relevant affected criterion/criteria.
- Addition or substitution of new suppliers: The Competent Body should be provided with appropriate documentation proving the suppliers' compliance with the criteria. In addition, an updated list of suppliers must be provided.

1.7 Continuous control – the responsibility of the applicant

The applicant is responsible for ensuring that the product, once awarded the EU Ecolabel, always remains in compliance with the EU Ecolabel criteria.

After an EU Ecolabel licence has been granted, the licence holder must keep the application dossier up to date. In cases where continued tests or measurements are required, the licence holder is responsible for keeping a record of the test results and other relevant documentation. This documentation mays not need to be sent to the Competent Body, unless there is a specific requirement to do so which will be set out in the relevant criterion, but must be available at any time if requested.

Version 1.0 Page 8 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

If at any time during the validity period of the licence the product falls out of compliance with the criteria this must be reported to the Competent Body immediately, together with a statement of the reasons for non-compliance. The Competent Body will decide the consequences of the non-compliance, e.g. a demand for additional measurements, suspension of the licence etc.

1.8 Assessment of compliance to the criteria

The Competent Body may undertake any necessary investigations to monitor the licence holder's ongoing compliance with the EU Ecolabel criteria and the terms of use and provisions of the contract. To this end, the Competent Body may request, and the licence holder shall provide, any relevant documentation to prove such compliance.

1.9 Costs

The applicant is responsible for compiling the application and obtaining all the necessary supporting evidence, which may include tests etc.

In addition the applicant must pay an application fee³, and an annual licence fee where this is asked for by the Competent Body. In some cases, applicants may be charged for an on-site verification, which may include travel and accommodation costs. Subsequent to the award of the licence, Competent Bodies may also charge for extension/modification fees and on-site inspections. Further information can be found at:



to be inserted when Commission have got the page in place

Version 1.0 Page 9 of 131

³ According to the Commission Regulation (EU) No 782/2013 of 14 August 2013 amending Annex III to the Regulation (EC) No 66/2010 of the European Parliament and of the Council on the EU Ecolabel 25 November 2009.



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

2 The application process

The first step in starting the application process is to contact your Competent Body, as they can help support you in compiling your application. See section above 'Who can apply?' to find out which Competent Body(ies) you should apply to.

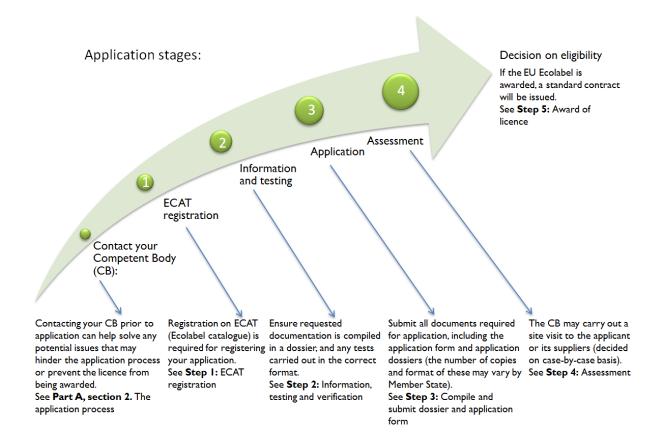
The contact details of all the EU Ecolabel Competent Bodies are available at:



http://ec.europa.eu/environment/ecolabel/competent-bodies.html

Figure 1 outlines the stages involved in applying for the EU Ecolabel. Further detail is given in the explanations that follow.

Figure 1: Ecolabel application stages



Version 1.0 Page 10 of 131

Ecolabel www.ecolabel.eu

EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Step 1: ECAT registration

The online tool **ECAT** (the EU Ecolabel E-Catalogue), must be used to initially register your application for an EU Ecolabel licence.

Follow the instructions on the E-Catalogue User Manual which you can download from http://ec.europa.eu/environment/ecolabel/ecolabelled products/pdf/user manual/Ecat admin%20user%20manual%20for%20Applicants.pdf. This user manual outlines the process for registration, which will include registering under the European Commission Authentication Service (ECAS) system. If you have any problems using the system, contact your Competent Body, or the Ecolabel Helpdesk...

Step 2: Information, testing and verification requirements

Use the criteria document, and the information and checklists in this User Manual, to assemble a dossier containing all the information and test results needed to show how the product has met each criterion. Each criterion will include a section setting out the Assessment and verification requirements which may include product tests, declarations of compliance, or independent verification. It is essential that data is accurate and substantiated; further checks may be carried out by the Competent Body if deemed appropriate.

All test and independent verification costs must be met by the applicant. You should factor in these costs before you decide to apply.

Step 3: Compile and submit dossier and application form

Please note that a dossier, comprising an application form with all the above supporting documentation, will need to be submitted to the relevant Competent Body. If your application is successful, you will be expected to retain a copy of the dossier and keep it up to date for the duration of your licence.

Send all of the documents required for application (typically a completed and signed copy (or copies) of the application form, and the application dossier – the number of copies and format of these may vary by Member State), to the relevant Member State Competent Body. For further information, please contact your Competent Body.

Step 4: Assessment

Version 1.0 Page 11 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

After receiving an application, the Competent Body examines the documentation including any material sent directly by suppliers. The Competent Body can ask for further information if necessary, within two months of receipt of an application. The Competent Body may make a list of any additional documentation required in order to comply with the EU Ecolabel product group criteria. This list will be forwarded to the applicant who must ensure that the relevant documentation is provided.

It should also be noted that a Competent Body can reject an application if sufficient documentation is not received within 6 months of the initial application.

After all the documentation has been approved, the Competent Body may carry out an on-site visit to the applicant and/or its suppliers. The Competent Body makes this judgement on a case-by-case basis and may charge for it. Again, please contact your Competent Body for details.

Step 5: Award of licence

When the application has been assessed and is approved by the Competent Body, a contract is issued, which sets out the range of products covered, including any trade names. This contract sets out the terms of use of the EU Ecolabel, following the standard contract in Annex IV of the Regulation (EC) no. 66/2010 of 25 November 2009.

Once the contract is signed by the applicant, a certificate can be asked for. This certificate will detail:

- the licence number that can be used with the EU Ecolabel logo
- the legal name of the applicant
- the range of products awarded the EU Ecolabel
- all relevant trade names under which the product is sold.

Upon receipt of the signed contract, the licence holder can use the EU Ecolabel logo and licence number on the relevant products in accordance with the EU Ecolabel Logo guidelines, which can be found at:



http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf

2.1 Revision of criteria

The criteria for each product group are revised every three/four years, and existing EU Ecolabel holders have to re-apply when these new, revised criteria come into force. Therefore, it is advisable to consider the timing of your application to avoid consecutive application and then re-application against new criteria. A transition period for adjusting the product(s) formulation and applying for reassessment is usually allowed for and is set out in the new criteria document.

Version 1.0 Page 12 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)



For more information about the application process visit the EU Ecolabel website at:

http://ec.europa.eu/environment/ecolabel/how-to-apply-for-eu-ecolabel.html

2.2 Checklist: How to apply

Reference	Requirement	Tick when complete
<u>1.1</u>	Ensure your product is eligible for the EU Ecolabel	
Web link	Download the relevant product group criteria	
<u>1.4</u>	Identify the Competent Body you can apply to	
<u>1.4</u>	Contact the relevant Competent Body and notify them of your intention to apply for an EU Ecolabel	
<u>2. Step 1</u>	Register with ECAT Admin	
2. Step 2	Obtain two paper application forms from your Competent Body	
2. Revision	Check to see if the criteria relating to your product(s) or service are due to be revised or updated in the near future. ⁴	
<u>1.6</u>	If only submitting a change to products or suppliers, identify the nature of the change and submit supporting documentation	

Version 1.0 Page 13 of 131

⁴ For information about the criteria revision, please visit the website http://ec.europa.eu/environment/ecolabel/products-groups-and-criteria.html



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

2.3 Definitions

The following definitions shall apply to references throughout this User Manual, and in reference to the original criteria document:

- 1. 'cot mattress' means a mattress with the length shorter than 1400 mm;
- 2. **'eliminable substance'** means a substance that shows 80 % degradation of dissolved organic carbon within 28 days using one of the following test methods: OECD 303A/B, ISO 11733;
- 3. 'inherently biodegradable substance' means a substance that shows 70 % degradation of dissolved organic carbon within 28 days or 60 % of theoretical maximum oxygen depletion or carbon dioxide generation within 28 days using one of the following test methods: ISO 14593, OECD 302 A, ISO 9887, OECD 302 B, ISO 9888, OECD 302 C;
- 4. 'mattress 'a mattress is a product for use as bedding, that is formed of a cloth cover filled with materials and that can be placed on an existing supporting bed structure or designed for free standing in order to provide a surface to sleep or rest upon for indoor use;
- 5. **'readily biodegradable substance'** means a substance that shows 70 % degradation of dissolved organic carbon within 28 days or 60 % of theoretical maximum oxygen depletion or carbon dioxide generation within 28 days using one of the following test methods: OECD 301 A, ISO 7827, OECD 301 B, ISO 9439, OECD 301 C, OECD 301 D, ISO 10708, OECD 301 E, OECD 301 F, ISO 9408;
- 6. **'semi-volatile organic compound (SVOC)'** means any organic compound eluting in a gas chromatographic column between n-hexadecane (excluded) and n-docosane (included) and with a boiling point approximately higher than 287°C, where the measurement is carried out using a capillary column coated with 5 % phenyl / 95 % methyl-polysiloxane;
- 7. 'very volatile organic compound (VVOC)' means any organic compound eluting in a gas chromatographic column before n-hexane and with a boiling point approximately lower than 68°C, where the measurement is carried out using a capillary column coated with 5 % phenyl / 95 % methyl-polysiloxane;
- 8. **'volatile organic compound (VOC)'** means any organic compound eluting in a gas chromatographic column between, and including, n-hexane and n-hexadecane with a boiling point in the range of approximately 68 °C to 287 °C, where the measurement is carried out using a capillary column coated with 5 % phenyl / 95 % methyl-polysiloxane.

Version 1.0 Page 14 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Part B: Product Assessment and Verification

1 Product group criteria

Criteria for awarding the EU Ecolabel to bed mattresses relate to their composition; performance level and efficiency; release of chemicals; consumer information/product labelling:

- 1. Latex foam
- 2. Polyurethane (PUR) foam
- 3. Wire and springs
- 4. Coconut fibres
- 5. Textiles (fabrics and fibres used as mattress cover and/or filling materials)
- 6. Glues and adhesives
- 7. Flame retardants
- 8. Biocides
- 9. Plasticizers
- 10. Excluded or limited substances and mixtures
- 11. Emission of specified volatile organic compounds (SVOCs, VOCs, VVOCs) from the mattress
- 12. Technical performance
- 13. Design for disassembly and recovery of materials
- 14. Information appearing on the EU Ecolabel
- 15. Additional information to consumers

The Ecolabel criteria reflect the best environmental performing bed mattresses on the market.

Whilst the use of chemical products and release of pollutants is part of the production process, the use of hazardous substances are excluded whenever possible or limited to the minimum necessary to provide an adequate function and at the same time strict quality and safety standards to the mattress. For this purpose, derogation conditions for specific substances and groups of substances are granted in exceptional circumstances. This prevents disproportionaltely shifting the environmental burden to other life cycle phases or impacts, and only occurs when there are no viable alternatives existing on the market.

Version 1.0 Page 15 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

2 Assessment and verification requirements

The specific assessment and verification requirements are indicated within each criterion. Where the applicant is required to provide declarations, documentation, analyses, test reports, or other evidence to show compliance with the criteria, these may originate from the applicant and/or his supplier(s) and/or their suppliers, etc., as appropriate.

Competent Bodies shall preferentially recognise tests which are accredited according to ISO 17025 and verifications performed by bodies which are accredited under the EN 45011 standard or an equivalent international standard.

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

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

As pre-requisite, the product must meet all respective legal requirements of the country(ies) in which the product is intended to be placed on the market. The applicant shall declare the product's compliance with this requirement.

Version 1.0 Page 16 of 131

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Criterion 1: Latex foam

Note: The following requirements need to be met only if latex foam contributes to more than 5 % of the total weight of the mattress.

1.1. Restricted substances

The concentrations in the latex foam of the substances listed below shall not exceed the values set out in Table 1:

Table 1: Limits on substance concentrations in latex foam

Group of substances	Substance	Limit value (ppm)	Assessment & verification conditions
Chlorophenols	mono- and di-chlorinated phenols (salts and		
	esters)	1.0	А
	Other chlorophenols	0.1	А
Heavy metal	As (Arsenic)	0.5	В
	Cd (Cadmium)	0.1	В
	Co (Cobalt)	0.5	В
	Cr (Chromium), total	1.0	В
	Cu (Copper)	2	В
	Hg (Mercury)	0.02	В
	Ni (Nickel)	1.0	В
	Pb (Lead)	0.5	В
	Sb (Antimony)	0.5	В
Pesticides*	Aldrin	0.04	С
	o,p-DDE	0.04	С
	p,p-DDE	0.04	С
	o,p-DDD	0.04	С
	p,p-DDD	0.04	С
	o,p-DDT	0.04	С
	p,p-DDT	0.04	С
	Diazinone	0.04	С
	Dichlorfenthion	0.04	С
	Dichlorvos	0.04	С
	Dieldrin	0.04	С
	Endrin	0.04	С
	Heptachlor	0.04	С
	Heptachlorepoxide	0.04	С
	Hexachlorbenzene	0.04	С
	Hexachlorcyclohexane	0.04	С

Version 1.0 Page 17 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Group of substances	Substance	Limit value (ppm)	Assessment & verification conditions
	α-Hexachlorcyclohexane	0.04	С
	β-Hexachlorcyclohexane	0.04	С
	γ-Hexachlorcyclohexane (Lindane)	0.04	С
	δ-Hexachlorcyclohexane	0.04	С
	Malathion	0.04	С
	Methoxichlor	0.04	С
	Mirex	0.04	С
	Parathion-ethyl	0.04	С
	Parathion-methyl	0.04	С
Other specific	Butadiene	1	D
substances that			
are restricted			
* Only for foams composed of natural latex for at least 20 % by weight.			

Required documentation for Assessment and verification: Restricted substances

- A. For chlorophenols the applicant shall provide a report presenting the results of the following test procedure. 5 g of sample shall be milled and chlorophenols shall be extracted in the form of phenol (PCP), sodium salt (SPP) or esters (see note). The extracts shall be analysed by means of gas chromatography (GC). Detection shall be made with mass spectrometer or electron capture detector (ECD).
- B. For heavy metals the applicant shall provide a report presenting the results of the following test procedure. Milled sample material is eluted in accordance with DIN 38414-S4 or equivalent in a ratio of 1:10. The resultant filtrate shall be passed through a 0.45 µm membrane filter (if necessary by pressure filtration). The solution obtained shall be examined for the content of heavy metals by inductively coupled plasma optical emission spectrometry (ICP-OES), also known as inductively coupled plasma atomic emission spectrometry (ICP- AES), or by atomic absorption spectrometry using a hydride or cold vapour process.
- C. For pesticides the applicant shall provide a report presenting the results of the following test procedure: 2 g of sample is extracted in an ultrasonic bath with a hexane/dichloromethane mixture (85/15). The extract is cleaned up by acetonitrile agitation or by adsorption chromatography over florisil. Measurement and quantification are determined by gas chromatography with detection on an electron capture detector or by coupled gas chromatography/mass spectrometry. The testing on pesticides is requested for latex foams with a content of at least 20 % natural latex.
- D. For butadiene the applicant shall provide a report presenting the results of the following test

Version 1.0 Page 18 of 131

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

procedure. Following milling and weighing of the latex foam, headspace sampling shall be performed. Butadiene content shall be determined by gas chromatography with detection by flame ionisation.



Declaration re: latex foam (restricted substances) by latex foam manufacturer (criterion 1.1)

Note: In assessment condition A, PCP refers to pentachlorophenols and SPP refers to sodium pyrophosphate

1.2. Emission of specified volatile organic compounds (SVOCs, VOCs, VVOCs)

The room concentrations of the substances reported below, calculated through the test chamber method, shall not exceed the values in Table 2 after a period of 24 hours.

Table 2: Limits on volatile organic compound emissions from latex foam

Substance	Limit value (mg/m³)
1,1,1-trichloroethane	0.2
4-Phenylcyclohexene	0.02
Carbon Disulphide	0.02
Formaldehyde	0.005
Nitrosamines*	0.0005
Styrene	0.01
Tetrachloroethylene	0.15
Toluene	0.1
Trichlorethylene	0.05
Vinyl chloride	0.0001
Vinyl cyclohexene	0.002
Aromatic hydrocarbons (total)	0.3
VOCs (total)	0.5

^{*} n-nitrosodimethylamine (NDMA), n-nitrosodiethylamine (NDEA), n- nitrosomethylethylamine (NMEA), nnitrosodi-i-propylamine (NDIPA), n-nitrosodi-n- propylamine (NDPA), n-nitrosodi-n-butylamine (NDBA), nnitrosopyrrolidinone (NPYR), n- nitrosopiperidine (NPIP), n-nitrosomorpholine (NMOR).

Required documentation for Assessment and verification: Emission of specified volatile organic compounds



The applicant shall provide a report presenting the results of the following test procedure. A test chamber analysis shall be performed in accordance with the standard ISO 16000-9. The wrapped

Version 1.0 Page 19 of 131

ECOlabel www.ecolabel.eu

EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

sample shall be stored at room temperature at least for 24 hours. After this period the sample shall be unwrapped and immediately transferred into the test chamber. The sample shall be placed on a sample holder, which allows air access from all sides. The climatic factors shall be adjusted according to ISO 16000-9. For comparison of test results, the area specific ventilation rate (q=n/l) shall be 1. The ventilation rate shall be between 0.5 and 1. The air sampling shall be done 24±1 h after loading of the chamber during 1 hour on DNPH cartridges for the analysis of formaldehyde and other aldehydes and on Tenax TA for the analysis of other volatile organic compounds (see note). Sampling duration for other compounds may be longer but shall be completed before 30 hours

- The analysis of formaldehyde and other aldehydes shall comply with the standard ISO 16000-3. Unless specified differently, the analysis of other volatile organic compounds shall comply with the standard ISO 16000-6.
- Testing following the standard CEN/TS 16516 shall be considered equivalent to those of the ISO 16000 series of standards.
- The analysis of nitrosamines shall be done by means of gas chromatography in combination with a thermal energy analysis detector (GC-TEA), in accordance with the BGI 505-23 method (formerly: ZH 1/120.23) or equivalent.
- Declaration re: latex foam (SVOCs, VOCs, VVOCs) by latex foam manufacturer (criterion 1.2)

Note: DNPH is a specific absorbent type for measuring the presence of formaldehyde and other aldehydes. Tenax TA is a specific absorbent type for measuring the presences of VOCs.

Version 1.0 Page 20 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

1.3. Dyes

Should dyes be used, criterion 5.5 shall be respected.

Required documentation for Assessment and verification: Dyes

The applicant shall provide either a declaration of non-use of dyes from the manufacturer of the foam or, in case of use, a declaration of compliance with this criterion, together with supporting documentation.

Declaration re: latex foam (dyes) by latex foam manufacturer (criterion 1.3)

Version 1.0 Page 21 of 131

Criterion 2: Polyurethane (PUR) foam

Note: The following requirements need to be met only if PUR foam contributes to more than 5 % of the total weight of the mattress.

2.1 Restricted Substances

The concentrations in the PUR foam of the substances listed below shall not exceed the values in Table 3.

Table 3: Limits on substance concentrations in PUR foam

Group of substances	Substance (acronym, CAS number, element symbol)	Limit value	Assessment and verification conditions
Biocides	Substances restricted according to criterion 8.1	Not added intentionally	А
Heavy Metals	As (Arsenic)	0.2 ppm	В
	Cd (Cadmium)	0.1 ppm	В
	Co (Cobalt)	0.5 ppm	В
	Cr (Chromium), total	1.0 ppm	В
	Cr VI (Chromium VI)	0.01 ppm	В
	Cu (Copper)	2.0 ppm	В
	Hg (Mercury)	0.02 ppm	В
	Ni (Nickel)	1.0 ppm	В
	Pb (Lead)	0.2 ppm	В
	Sb (Antimony)	0.5 ppm	В
	Se (Selenium)	0.5 ppm	В
Plasticizers	Di-iso-nonylphthalate (DINP, 28553-12-0)	0.01 % w/w	С
	Di-n-octylphthalate (DNOP, 117-84-0)	(sum)	
	Di(2-ethylhexyl)-phthalate (DEHP, 117-81-7)		
	Di-iso-decylphthalate (DIDP, 26761-40-0)		
	Butylbenzylphthalate (BBP, 85- 68-7)		
	Dibutylphthalate (DBP, 84-74-2)		
	Phthalates	Not added intentionally	А
TDA and MDA	2,4-toluenediamine (2,4-TDA,95-80-7)	5.0 ppm	D
	4,4'-diaminodiphenylmethane (4,4'-MDA, 101-77-9)	5.0 ppm	D
Tinorganic	Tributyltin (TBT)	50 ppb	E

Version 1.0 Page 22 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Group of substances	Substance (acronym, CAS number, element symbol)	Limit value	Assessment and verification conditions
substances	Dibutyltin (DBT)	100 ppb	E
	Monobutyltin (MBT)	100 ppb	E
	Tetrabutyltin (TeBT)	-	-
	Monooctyltin (MOT)	-	-
	Dioctyltin (DOT)	-	-
	Tricyclohexyltin (TcyT)	-	-
	Triphenyltin (TPhT)	-	-
	Sum	500 ppb	E
Other specific	Chlorinated or brominated dioxines or furans	Not added	А
substances that are restricted	Chlorinated hydrocarbons (1,1,2,2-tetrachloro- ethane, pentachloroethane, 1,1,2-trichloro- ethane, 1,1-dichloroethylene) Chlorinated phenols (PCP, TeCP, 87-86-5)	Not added intentionally	А
	Hexachlorocyclohexane (58-89- 9)		
	Monomethyldibromo-diphenylmethane (99688-47-8)		
	Monomethyldichloro-diphenylmethane (81161-70-8)		
	Nitrites*		
	Polybrominated biphenyls (PBB, 59536-65-1)		
	Pentabromodiphenyl ether (PeBDE, 32534-81-9)		
	Octabromodiphenyl ether (OBDE, 32536-52-0)		
	Polychlorinated biphenyls (PCB, 1336-36-3)		
	Polychlorinated terphenyls (PCT, 61788-33-8)		
	Tri-(2,3-dibromo-propyl)-phosphate (TRIS, 126-72-7)		
	Trimethylphosphate (512-56-1)		
	Tris-(aziridinyl)-phosphinoxide (TEPA, 5455-55-1)		
	Tris(2-chloroethyl)-phosphate (TCEP, 115-96-8)		
	Dimethyl methylphosphonate (DMMP, 756-79-6)		
*Nitrites are substar	nces that contain an a nitrite functionality, either as salts o	r in other forms.	

Required documentation for Assessment and verification: Restricted substances

Version 1.0 Page 23 of 131

Ecolabel Www.ecolabel.eu

EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

- A. For biocides, phthalates and other specific substances that are restricted the applicant shall provide a declaration supported by declarations from manufacturers of the foam confirming that the listed substances have not been added intentionally to the foam formulation. (see note)
- B. For heavy metals the applicant shall provide a report presenting the results of the following test procedure. Milled sample material is eluted in accordance with DIN 38414-S4 or equivalent in a ratio of 1:10. The resultant filtrate shall be passed through a 0.45 μm membrane filter (if necessary by pressure filtration). The solution obtained shall be examined for the content of heavy metals by atomic emission spectrometry with inductively coupled plasma (ICP-AES or ICP-OES) or by atomic absorption spectrometry using a hydride or cold vapour process.
- C. For the total amount of plasticizers the applicant shall provide a report presenting the results of the following test procedure. The sample shall be a composite of 6 pieces to be taken from beneath each samples face (to a maximum of 2 cm from the surface). Extraction shall be performed with dichloromethane using validated method and followed by analysis with gas chromatography–mass spectrometry (GC/MS) or high-performance liquid chromatography (HPLC/UV).
- D. For TDA and MDA the applicant shall provide a report presenting the results of the following test procedure. The sample shall be a composite of 6 pieces to be taken from beneath each samples face (to a maximum of 2 cm from the surface). Extraction shall be performed with 1 % aqueous acetic acid solution. Four repeat extractions of the same foam sample shall be performed maintaining the sample weight to volume ratio of 1:5 in each case. The extracts shall be combined, made up to a known volume, filtered and analysed by high- performance liquid chromatography (HPLC-UV) or HPLC-MS. If HPLC-UV is performed and interference is suspected, reanalysis with high performance liquid chromatography—mass spectrometry (HPLC-MS) shall be performed.
- E. For tinorganic substances the applicant shall provide a report presenting the results of the following test procedure. The sample shall be a composite of 6 pieces to be taken from beneath each sample face (to a maximum of 2 cm from the surface). Extraction shall be performed for 1 hour in an ultrasonic bath at room temperature. The extracting agent shall be a mixture composed as it follows: 1750 ml methanol + 300 ml acetic acid + 250 ml buffer (pH 4.5). The buffer shall be a solution of 164 g of sodium acetate in 1200 ml of water and 165 ml acetic acid, to be diluted with water to a volume of 2000 ml. After extraction the alkyl tin species shall be derivatized by adding sodium tetraethylborate solution in tetrahydrofuran (THF). The derivative shall be extracted with n-hexane and the sample shall be submitted to a second extraction procedure. Both hexane extracts shall be combined and further used to determine the organotin compounds by gas chromatography with mass selective detection in SIM modus (see note).
- Declaration (a) re: PUR foam (restricted substances) by PUR foam manufacturer (criterion 2.1)
- Declaration (b) re: PUR foam (restricted substances not intentionally added) by PUR foam

Version 1.0 Page 24 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

manufacturer (criterion 2.1)

hicksim Note: Biocides are defined as a chemical substance or microorganism which can deter, render harmless or exert a controlling effect on any harmful organism. Phthalates are a class of chemical substance commonly used as an additive in plastics.

Note: SIM modus is a specific analytical methodology suitable for quantitative analysis of trace substances.

2.2 Emission of specified volatile organic compounds (SVOCs, VOCs, VVOCs)

The room concentrations of the substances reported in Table 4, calculated through the test chamber method, shall not exceed the following values after a period of 72 hours.

Table 4: Limits on substance concentrations in PUR foam

Substance	Limit value (mg/m³)
Formaldehyde (50-00-0)	0.005
Toluene (108-88-3)	0.1
Styrene (100-42-5)	0.005
Each detectable compound classified as categories C1A or C1B according to the Regulation (EC) No 1272/2008 of the European Parliament and of the Council	0.005
Sum of all detectable compound classified as categories C1A	0.04
Aromatic hydrocarbons	0.5
VOCs (total)	0.5

Required documentation for Assessment and verification: Emission of specified volatile organic compounds



The applicant shall provide a report presenting the results of the following test procedure. The foam sample is placed on the bottom of an emission test chamber and is conditioned for 3 days at 23°C and 50 % relative humidity, applying an air exchange rate n of 0.5 per hour and a chamber loading L of 0.4 m²/m³ (= total exposed surface of sample in relation to chamber dimensions without sealing edges and back) in accordance with ISO 16000-9 and ISO 16000-11. Sampling shall be done 72 ± 2 h after loading of the chamber during 1 hour on Tenax TA and DNPH cartridges for respectively VOC and formaldehyde analysis. The emissions of VOC are being trapped on Tenax TA sorbent tubes and subsequently analysed by means of thermo-desorption-

Version 1.0 Page 25 of 131

ECOlabel www.ecolabel.eu

EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

GC-MS in accordance to ISO 16000-6. Results are semi-quantitatively expressed as toluene equivalents. All specified individual components are reported from a concentration limit ≥ 1 µg/m³. Total VOC value is the sum of all components with a concentration ≥ 1 µg/m³ and eluting within the retention time window from n-hexane (C6) to n-hexadecane (C16), both included. The sum of all detectable compounds classified as categories C1A or C1B according to Regulation (EC) No 1272/2008 is the sum of all these substances with a concentration ≥ 1 µg/m³. In case the test results exceed the standard limits, substance specific quantification needs to be performed. Formaldehyde can be determined by collection of the sampled air onto DNPH cartridge and subsequent analysis by HPLC/UV in accordance to ISO 16000-3.







- Chamber volume shall be 0.5 or 1 m^3 .
- 1 sample (25 cm \times 20 cm \times 15 cm) shall be used in a test chamber of 0.5 m^3 standing vertically on one 20 cm \times 15 cm side.
- 2 samples (25 cm \times 20 cm \times 15 cm) shall be used in a 1 m^3 test chamber standing vertically on one 20 cm \times 15 cm side; in this case both samples shall be placed in the test chamber with 15 cm distance in between.

Version 1.0 Page 26 of 131

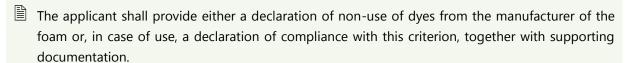


Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

2.3 Dyes

Should dyes be used, criterion 5.5 shall be respected.

Required documentation for Assessment and verification: Dyes

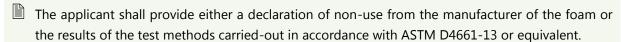


Declaration re: PUR foam (dyes) by PUR foam manufacturer (criterion 2.3)

2.4 Total chlorine content of isocyanates

Should mixed isomers of toluene diisocyanate (TDI) be used in the production of the PUR foam, the total chlorine content of these isocyanates shall not exceed 0.07 % by weight.

Required documentation for Assessment and verification: Total chlorine content of isocyanates





Note: The criterion refers to ASTM D4661-93, however this should read ASTM D4661-13.

2.5 Blowing agents

Halogenated organic compounds shall not be used as blowing agents or as auxiliary blowing agents (see note).

Required documentation for Assessment and verification: Blowing agents

The applicant shall provide a declaration of non-use from the manufacturer of the foam.

Declaration re: PUR foam (blowing agents) by PUR foam manufacturer (criterion 2.5)

Version 1.0 Page 27 of 131

Ecolabel www.ecolabel.eu

EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Note: A blowing agent is a substance which is used to produce a cellular structure via a foaming process. Auxiliary blowing agents may also be used in these processes to provide better control of the foaming procedure, and impart specific properties to the end product.

Version 1.0 Page 28 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

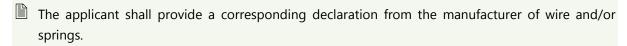
Criterion 3: Wire and springs

Note: The following requirements need to be met only if wire and springs contribute to more than 5% of the total weight of the mattress.

3.1 Degreasing

If degreasing and/or cleaning of wire and/or springs is carried out with organic solvents, use shall be made of a closed cleaning/degreasing system.

Required documentation for Assessment and verification: Degreasing



Declaration re: wire and springs (degreasing) by wire/spring manufacturer (criterion 3.1)

3.2 Galvanisation

The surface of springs shall not be covered with a galvanic metallic layer (see note).

Required documentation for Assessment and verification: Galvanisation

The applicant shall provide a corresponding declaration from the manufacturer of wire and/or springs.

Declaration re: wire and springs (galvanisation) by wire/spring manufacturer (criterion 3.2)

Note: A galvanic metallic layer may be used to prevent rusting through the application of a protective zinc coating to steel or iron (galvanisation).

Version 1.0 Page 29 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Criterion 4: Coconut fibres

Note: The following requirement needs to be met only if coconut fibres contribute to more than 5% of the total weight of the mattress.

Criteria for latex foam shall be considered if coconut fibre material is rubberised using latex (see note).

Required documentation for Assessment and verification: Coconut fibres

The applicant shall either provide a declaration of non-use of rubberised coconut fibres, or the test reports required in criterion 1 for latex foam.



 $oldsymbol{\Lambda}$ Note: Coconut fibre may have latex incorporated to bond fibres together to improve properties.

Version 1.0 Page 30 of 131



mmission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Criterion 5: Textiles (fabrics and fibres used as mattress cover and/or filling materials)



- A. All the requirements (5.1 to 5.11) shall be respected for the mattress cover (i.e. ticking).
- B. Filling materials (i.e. padding) shall respect requirement 5.1. Where wool is used as filling material, requirements 5.1, 5.2 and 5.8 shall be respected.
- C. All textiles which have been awarded the EU Ecolabel, as established in Commission Decision 5 June 2014, are considered being automatically compliant with requirements 5.1,5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.10 and 5.11. Nevertheless, in order to allow mattresses to be awarded the EU Ecolabel, it shall be demonstrated that also criterion 5.9 is satisfied for the mattress cover.

5.1 General requirements on hazardous substances (including flame retardants, biocides and plasticizers) (Applicability: all textiles)

All textiles: criteria 7 (flame retardants), 8 (biocides), 9 (plasticizers) and 10 (hazardous substances) shall be respected by all textiles.

Required documentation for Assessment and verification: General requirements

The applicant shall provide a declaration of compliance with this criterion, together with the supporting documentation required in the respective criteria (7, 8, 9 and 10).



Declaration re: textiles (hazardous substances) by applicant or textile supplier/manufacturer (criterion 5.1)

5.2 Auxiliaries used in preparations and formulations (Applicability: covers made of any fibres and filling materials made of wool)

Note: Auxiliaries are substances specifically added to textiles in order to change/enhance properties.

All covers: The following substances shall not be used in any preparations or formulations used for the production of all mattress covers. Limit values for the presence of alkylophenols and APEOs on the cover shall be respected.

Version 1.0 Page 31 of 131



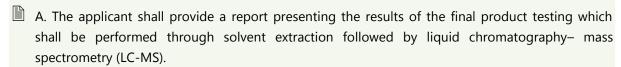
Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Filling materials made of wool: alkylophenols and APEOs (alkylophenolethoxylates) shall not be used in any preparations or formulations used for the production of filling materials made of wool and limit values for their presence in the filling material shall be respected.

Table 5: Limits on substance concentrations in textiles

Substance	Limit value (mg/kg)	Assessment and verification conditions
Alkylphenols:		
Nonylphenol, mixed isomers (25154-52-3)		
• 4-Nonylphenol (104-40-5)		
4-Nonylphenol, branched (84852-15-3)		
• Octylphenol (27193-28-8)		
• 4-Octylphenol (1806-26-4)	25 (sum)	Α
4-tert-Octylphenol (140-66-9)		
Alkylphenolethoxylates (APEOs) and their derivatives:		
Polyoxyethylated octyl phenol (9002-93-1)		
Polyoxyethylated nonyl phenol (9016-45-9)		
Polyoxyethylated p-nonyl phenol (26027-38-3)		
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)	Not used	В
Diethylene triamine penta acetate (DTPA)]	
4-(1,1,3,3-tetramethylbutyl)phenol		
1-Methyl-2-pyrrolidone]	
Nitrilotriacetic acid (NTA)		

Required documentation for Assessment and verification: Auxiliaries used in preparations and formulations



B. The applicant shall provide a declaration of non-use from the supplier supported by safety data sheets for all production stages.

Version 1.0 Page 32 of 131

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)



Declaration (a) re: auxiliaries used in the preparations and formulations of mattress covers made of any fibre by applicant (criterion 5.2, Assessment and verification condition A)



Declaration (b) re: auxiliaries used in the preparations and formulations of mattress covers made of any fibre by textile manufacturer/supplier (criterion 5.2, Assessment and verification condition B)



Declaration (c) re: auxiliaries used in preparations and formulations where filling materials are made of wool by fibre supplier/manufacturer (criterion 5.2 Assessment and verification condition <u>A)</u>

5.3 Surfactants, fabric softeners and complexing agents in wet processes (Applicability: covers made of any fibres)

 $extcolor{l}{l}$ Note: A wet process is a textile processing step that involves or is carried out in water, and may be at any stage of textiles production, e.g. pre-treatment, dyeing, printing or finishing.

All surfactants, softeners and complexing agents: At least 95 % by weight of surfactants, softeners and complexing agents shall comply with one of the following conditions:

- (a) they shall be readily biodegradable under aerobic conditions;
- (b) they shall be inherently biodegradable or eliminable in wastewater treatment plants.

Non-ionic and cationic surfactants: All non-ionic and cationic surfactants shall also be readily biodegradable under anaerobic conditions. The latest revision of the Detergents Ingredients Database should be used as a reference point for biodegradability.



Latest version of the Detergents Ingredients Database available from:

http://ec.europa.eu/environment/ecolabel/documents/did list/didlist part a en.pdf

hickspace Note: A surfactant is a substance that enables mixing of two immiscible substances. Softeners are used in textile processing to prevent static cling. Complexing agents are a specific group of substances, these are used to reduce the calcium and magnesium content in processing water.



 $oldsymbol{ol}oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol{ol}}}}}}}}}}}}}}}}}}}$

Required documentation for Assessment and verification: Surfactants, fabric softeners

Version 1.0 Page 33 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

and complexing agents in wet processes (Applicability: covers made of any fibres)

The applicant shall provide appropriate documentation through safety data sheets and declarations from suppliers.

For all surfactants, softeners and complexing agents, this shall be supported by results of appropriate OECD or ISO tests for:

- Readily biodegradability (OECD 301 A, ISO 7827, OECD 301 B, ISO 9439, OECD 301 C, OECD 301 D, ISO 10708, OECD 301 E, OECD 301 F, ISO 9408)
- 2. Inherently biodegradability (ISO 14593, OECD 302 A, ISO 9887, OECD 302 B, ISO 9888, OECD 302 C)
- 3. Eliminability (OECD 303A/B, ISO 11733)



For non-ionic and cationic surfactants, this shall be supported by results of appropriate OECD or ISO tests (ISO 11734, ECETOC No 28 (June 1988), OECD 311).



Declaration re: surfactants, fabric softeners and complexing agents in wet processes by fibre supplier/manufacturer (criterion 5.3)

5.4 Bleaching of pulp, yarns, fabrics and end products (Applicability: covers made of any fibres)

Chlorine agents shall not be used for the bleaching of any yarns, fabrics or end-products with the exception of man-made cellulose fibres.

Pulp used to manufacture man-made cellulose fibres (e.g. viscose) shall be bleached without the use of elemental chlorine. The resulting total amount of chlorine and organically bound chlorine in the finished fibres (OX) shall not exceed 150 ppm or in the wastewater from pulp manufacturing (AOX) shall not exceed 0.170 kg / ADt pulp.



Note: Chlorine agents are substances that contain chlorine as an active species. OX and AOX.

Version 1.0 Page 34 of 131

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Required documentation for Assessment and verification: Bleaching of pulp, yarns, fabrics and end products (Applicability: covers made of any fibres)



The applicant shall provide a declaration of non-use of chlorinated bleaching agents from the supplier.

For man-made cellulose fibres, the applicant shall provide a test report showing compliance with either the OX or the AOX requirement, using the appropriate test method:

- OX: ISO 11480 (controlled combustion and microcoulometry)
- AOX: ISO 9562



Declaration (a) re: bleaching of pulp, yarns, fabrics and end products (non man-made cellulose fibres) by fibre supplier/manufacturer (criterion 5.4)



Declaration (b) re: bleaching of pulp, yarns, fabrics and end products (man-made cellulose fibres) by fibre supplier/manufacturer (criterion 5.4)

5.5 Dyes (Applicability: covers made of any fibres)

The following restrictions apply to dyes.

The use of dyes in textiles shall be also compliant with criterion 10 on hazardous substances and thus the related derogation conditions shall apply. Derogation conditions relate to the handling of dyes in the dye house, the dyeing process and colour removal from wastewater from dye houses.

Dyes are classified in the following groups,

- (i) Halogenated carriers
- (ii) Azo dyes
- (iii) CMR dyes
- (iv) Potentially sensitising dyes
- (v) Chrome mordant dyes
- (vi) Metals complex dyes

The criteria and Assessment and verification requirements for each are listed below;

i) Halogenated carriers

Where disperse dyes are used, halogenated dyeing accelerants (carriers) shall not be used to dye polyester, acrylic or polyamide fibres and fabrics made of these fibres or polyester- wool blends (Examples of carriers include: 1,2-dichlorobenzene, 1,2,4-trichlorobenzene, chlorophenoxyethanol).

Version 1.0 Page 35 of 131

Assessment and Verification - A

igspace Note: Disperse dye refers to organic colouring substances which are free from ionizing groups, are of low water solubility and are suitable for dyeing hydrophobic fibres.

ii) Azo dyes

Azo dyes that may cleave to aromatic amines that are known to be carcinogenic shall not be used in acrylic, cotton, polyamide and wool fibres and fabrics made of these fibres (see Table 6). The limit value for the content of each arylamine in the final product shall be 30 mg/kg.



Note: Azo dyes are defined as containing an "azo" chemical group within the structure.

Table 6: Arylamines covered by this criterion

Aryl amine	CAS number
4-aminodiphenyl	92-67-1
Benzidine	92-87-5
4-chloro-o-toluidine	95-69-2
2-naphtylamine	91-59-8
o-amino-azotoluene	97-56-3
2-amino-4-nitrotoluene	99-55-8
p-chloroaniline	106-47-8
2,4-diaminoanisol	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
o-anisidine (2-Methoxyanilin)	90-04-0
2,4-Xylidine	95-68-1
2,6-Xylidine	87-62-7

Version 1.0 Page 36 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Aryl amine	CAS number
4-aminoazobenzene	60-09-3

An indicative list of azodyes that may cleave to arylamines is provided in Table 7, Table 8, Table 9, and Table 10.

Table 7: Disperse dyes that may cleave to aromatic amines

Disperse Orange 60	Disperse Yellow 7
Disperse Orange 149	Disperse Yellow 23
Disperse Red 151	Disperse Red 56
Disperse Red 221	Disperse Red 218

Table 8: Basic dyes that may cleave to aromatic amines

Basic Brown 4	Basic Red 114
Basic Red 42	Basic Yellow 82
Basic Red 76	Basic Yellow 103
Basic Red 111	

Table 9: Acid dyes that may cleave to aromatic amines

CI Acid Black 29	CI Acid Red 24	CI Acid Red 128
CI Acid Black 94	CI Acid Red 26	CI Acid Red 115
CI Acid Black 131	CI Acid Red 26:1	CI Acid Red 128
CI Acid Black 132	CI Acid Red 26:2	CI Acid Red 135
CI Acid Black 209	CI Acid Red 35	CI Acid Red 148
CI Acid Black 232	CI Acid Red 48	CI Acid Red 150
CI Acid Brown 415	CI Acid Red 73	CI Acid Red 158
CI Acid Orange 17	CI Acid Red 85	CI Acid Red 167
CI Acid Orange 24	CI Acid Red 104	CI Acid Red 170
CI Acid Orange 45	CI Acid Red 114	CI Acid Red 264
CI Acid Red 4	CI Acid Red 115	CI Acid Red 265
CI Acid Red 5	CI Acid Red 116	CI Acid Red 420
CI Acid Red 8	CI Acid Red 119:1	CI Acid Violet 12

Table 10: Direct dyes that may cleave to aromatic amines

Direct Black 4	Basic Brown 4	Direct Red 13
Direct Black 29	Direct Brown 6	Direct Red 17
Direct Black 38	Direct Brown 25	Direct Red 21

Version 1.0 Page 37 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Direct Black 154	Direct Brown 27	Direct Red 24
Direct Blue 1	Direct Brown 31	Direct Red 26
Direct Blue 2	Direct Brown 33	Direct Red 22
Direct Blue 3	Direct Brown 51	Direct Red 28
Direct Blue 6	Direct Brown 59	Direct Red 37
Direct Blue 8	Direct Brown 74	Direct Red 39
Direct Blue 9	Direct Brown 79	Direct Red 44
Direct Blue 10	Direct Brown 95	Direct Red 46
Direct Blue 14	Direct Brown 101	Direct Red 62
Direct Blue 15	Direct Brown 154	Direct Red 67
Direct Blue 21	Direct Brown 222	Direct Red 72
Direct Blue 22	Direct Brown 223	Direct Red 126
Direct Blue 25	Direct Green 1	Direct Red 168
Direct Blue 35	Direct Green 6	Direct Red 216
Direct Blue 76	Direct Green 8	Direct Red 264
Direct Blue 116	Direct Green 8.1	Direct Violet 1
Direct Blue 151	Direct Green 85	Direct Violet 4
Direct Blue 160	Direct Orange 1	Direct Violet 12
Direct Blue 173	Direct Orange 6	Direct Violet 13
Direct Blue 192	Direct Orange 7	Direct Violet 14
Direct Blue 201	Direct Orange 8	Direct Violet 21
Direct Blue 215	Direct Orange 10	Direct Violet 22
Direct Blue 295	Direct Orange	Direct Yellow 1
Direct Blue 306	Direct Red 1	Direct Yellow 24
Direct Brown 1	Direct Red 2	Direct Yellow 48
Direct Brown 1:2	Direct Red 7	
Direct Brown 2	Direct Red 10	

<u>Assessment and Verification - B</u>

iii) CMR dyes

Dyes that are carcinogenic, mutagenic or toxic to reproduction shall not be used in all fibres and fabrics (see Table 11).

Table 11: Dyes that are carcinogenic, mutagenic or toxic to reproduction

Dyes that are carcinogenic, mutagenic or toxic to reproduction	CAS Number
C.I. Acid Red 26	3761-53-3
C.I. Basic Red 9	569-61-9

Version 1.0 Page 38 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

C.I. Basic Violet 14	632-99-5
C.I. Direct Black 38	1937-37-7
C.I. Direct Blue 6	2602-46-2
C.I. Direct Red 28	573-58-0
C.I. Disperse Blue 1	2475-45-8
C.I. Disperse Orange 11	82-28-0
C.I. Disperse Yellow 3	2832-40-8

Assessment and Verification - A

iv) Potentially sensitising dyes

Dyes that are potentially sensitising shall not be used in acrylic, polyamide and polyester fibres and fabrics made of these fibres (see Table 12).

Note: Sensitising chemicals are substances and preparations which are capable of eliciting a reaction of hypersensitisation, causing adverse effects on further exposure to the chemical.

Table 12: Dyes that potentially sensitising

Dyes that are carcinogenic, mutagenic or toxic to reproduction	CAS Number
C.I. Disperse Blue 1	2475-45-8
C.I. Disperse Blue 3	2475-46-9
C.I. Disperse Blue 7	3179-90-6
C.I. Disperse Blue 26	3860-63-7
C.I. Disperse Blue 35	12222-75-2
C.I. Disperse Blue 102	12222-97-8
C.I. Disperse Blue 106	12223-01-7
C.I. Disperse Blue 124	61951-51-7
C.I. Disperse Brown 1	23355-64-8
C.I. Disperse Orange 1	2581-69-3
C.I. Disperse Orange 3	730-40-5
C.I. Disperse Orange 37	12223-33-5
C.I. Disperse Orange 76	13301-61-6
C.I. Disperse Red 1	2872-52-8
C.I. Disperse Red 11	2872-48-2
C.I. Disperse Red 17	3179-89-3
C.I. Disperse Yellow 1	119-15-3
C.I. Disperse Yellow 3	2832-40-8
C.I. Disperse Yellow 9	6373-73-5
C.I. Disperse Yellow 39	12236-29-2

Version 1.0 Page 39 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Dyes that are carcinogenic, mutagenic or toxic to reproduction	CAS Number
C.I. Disperse Yellow 49	54824-37-2

Assessment and Verification - A

Chrome mordant dyes

Chrome mordant dyes shall not be used in polyamide and wool fibres and fabrics made of these fibres.



Note: Chrome mordant dyes are dyes that contain a potassium or sodium bi-chromate.

Assessment and Verification - A

vi) Metals complex dyes

Metal complex dyes based on copper, chromium and nickel shall only be permitted for dyeing wool, polyamide or blends of these fibres with man-made cellulose fibres (e.g. viscose).



Note: Metal complex dyes are dyes where the dye molecules are coordinated with a metal ion.

Assessment and Verification

Required documentation for Assessment and verification: Dyes (Applicability: covers made of any fibres)

- A. The applicant shall provide a declaration of non-use from the supplier supported by safety data sheets.
- B. The applicant shall provide a report presenting the results of the final product testing. Content of azo dyes in the final product shall be tested according to EN 14362-1 and 14362-3. Limit value is 30 mg/kg for each arylamine. (Note: false positives may be possible with respect to the presence of 4-aminoazobenzene, and confirmation is therefore recommended).
- <u>Declaration (a) re: dyes by fibre supplier/manufacturer (criterion 5.5)</u>
- Declaration (b) re: azo dyes by supplier/manufacturer (criterion 5.5)

Version 1.0 Page 40 of 131



5.6 Extractable metals (Applicability: covers made of any fibres)

The limit values in Table 13 shall apply.

Table 13: Extractable metals

Metal	Limit values (mg/kg)	
	Covers for cot mattresses	All other products
Antimony (Sb)	30.0	30.0
Arsenic (As)	0.2	1.0
Cadmium (Cd)	0.1	0.1
Chromium (Cr): - Textiles dyed with metal complex dyes	1.0	2.0
- All other textiles	0.5	1.0
Cobalt (Co) - Textiles dyed with metal complex dyes	1.0	4.0
- All other textiles	1.0	1.0
Copper (Cu)	25.0	50.0
Lead (Pb)	0.2	1.0
Nickel (Ni): - Textiles dyed with metal complex dyes	1.0	1.0
- All other textiles	0.5	1.00
Mercury (Hg)	0.02	0.02

Required documentation for Assessment and verification: Extractable metals (Applicability: covers made of any fibres)

The applicant shall provide a report presenting the results of the final product testing as verification for the limit values. The tests shall be extraction according to ISO 105-E04 (acid sweat solution) and detection with inductively coupled plasma mass spectrometry (ICP-MS) or inductively coupled plasma optical emission spectrometry (ICP-OES, also referred to as ICP-AES).

Declaration re: extractable metals in covers made of any fibres by applicant (criterion 5.6)

Version 1.0 Page 41 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Version 1.0 Page 42 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

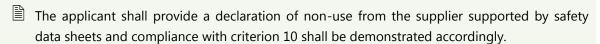
5.7 Water, stain and oil repellents (Applicability: covers made of any fibres)

Fluorinated water, stain and oil repellent treatment shall not be used. This shall include perfluorinated and polyfluorinated carbon treatments.

Note: Fluorinated treatments consist in the application of substances that contain fluorine and that act either as water repellents, stain repellents or oil repellents.

Non-fluorinated treatments shall be readily biodegradable and non-bioaccumulative in the aquatic environment including aquatic sediment. They shall additionally comply with criterion 10 on hazardous substances.

Required documentation for Assessment and verification: Water, stain and oil repellents (Applicability: covers made of any fibres)



Declaration re: water, stain and oil repellents by fibre manufacturer/supplier (criterion 5.7)

5.8 Wastewater discharges from wet processing (Applicability: covers made of any fibres and filling materials made of wool)

Wastewater discharges to the environment shall not exceed 20 g COD / kg textile processing. This requirement shall apply to weaving, dyeing, printing and finishing processes used to manufacture the product(s). The requirement shall be measured downstream of on-site wastewater treatment plant or off-site wastewater treatment plant receiving wastewater from those processing sites.

If the effluent is treated on site and discharged directly to surface waters, it shall also meet the following requirements:

- (i) pH between 6 and 9 (unless the pH of the receiving water is outside this range)
- (ii) Temperature of less than 35°C (unless the temperature of the receiving water is above this value)

If colour removal is required by a derogation condition in criterion 10.1 then the following spectral absorption coefficients shall be met:

- (i) 7 m⁻¹ at 436 nm (yellow sector)
- (ii) 5 m⁻¹ at 525 nm (red sector)

Version 1.0 Page 43 of 131

EU Jabel Ecolabel www.ecolabel.eu

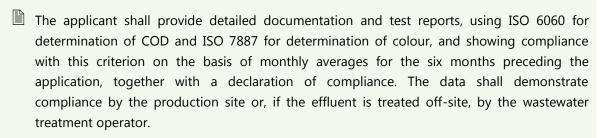
EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

(iii) 3 m⁻¹ at 620 nm (blue sector).

Note: COD refers to chemical oxygen demand, and is used to determine the quantity of organic compounds in water.

Required documentation for Assessment and verification: Wastewater discharges from wet processing (Applicability: covers made of any fibres and filling materials made of wool)



Declaration re: wastewater discharges from wet processing by textile manufacturer (criterion 5.8)

5.9 Mechanical resistance (Applicability: covers made of any fibre)

Mattress cover shall achieve satisfactory mechanical properties, which are defined by the testing standards in Table 14.

Table 14: Extractable metals

Property	Requirement	Test method
Tear strength	Woven fabrics ≥ 15 N	ISO 13937-2 (woven fabrics)
	Nonwoven fabrics ≥ 20 N	ISO 9073-4 (nonwoven)
	Knitted fabrics: not applicable	
Seam slippage	Woven fabrics ≥ 16 picks: maximum 6mm	ISO 13936-2 (under a load of 60 N for all woven fabrics)

Version 1.0 Page 44 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Property	Requirement	Test method
	Woven fabrics < 16 picks: maximum 10 mm Knitted fabrics and nonwovens: not	
Tensile strength	applicable Woven fabrics ≥ 350 N	ISO 13934-1
	Knitted fabrics and nonwovens: not applicable	

Required documentation for Assessment and verification: Mechanical resistance (Applicability: covers made of any fibre)

- The applicant shall provide reports describing the results of the tests performed according to ISO 13937-2 or ISO 9073-4 for tear strength, ISO 13936-2 (under a load of 60 N) for seam slippage and ISO 13934-1 for tensile strength.
- Declaration re: mechanical resistance by applicant or textile supplier/ manufacturer (criterion 5.9)

5.10 Durability of flame retardant function (Applicability: covers made of any fibre

Removable and washable covers shall retain their functionality after 50 wash and tumble dry cycles at a minimum of 75°C. Covers that are not intended to be removed and washed shall retain their functionality after a soak test.

Required documentation for Assessment and verification: Durability of flame retardant function (Applicability: covers made of any fibre)

- The applicant shall provide reports from tests carried out according to the following standards, as appropriate:
- ISO 6330 in combination with ISO 12138 for domestic wash cycles and ISO 10528 for industrial laundry cycles in case of removable and washable covers.
- BS 5651 or equivalent in case the cover is not intended to be removed and washed.
- Declaration re: durability of flame retardant function (covers made of any fibre) by applicant

Version 1.0 Page 45 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

or textile supplier/manufacturer (criterion 5.10)

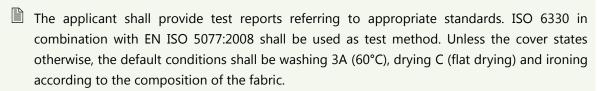
5.11 Dimensional change (Applicability: removable covers made of any fibres)

For mattress covers that are removable and washable, the dimensional changes after washing and drying at either domestic or industrial washing temperatures and conditions shall not exceed:

- Woven fabrics: +/- 3%
- Nonwoven fabrics: +/- 5%

This criterion does not apply to fabrics that are not promoted as "washable".

Required documentation for Assessment and verification: Dimensional change (Applicability: removable covers made of any fibres)





Note: This criterion refers to mattress covers that are <u>both</u> removable and washable.

Note: The EU Ecolabel criteria document refers to EN 25077 which has been withdrawn, EN ISO 5077:2008 should be used in its place.

Version 1.0 Page 46 of 131

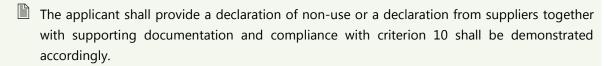


Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Criterion 6: Glues and adhesives

Glues containing organic solvents shall not be used. Glues and adhesives used for assembling the product shall be also compliant with criterion 10 on hazardous substances.

Required documentation for Assessment and verification: Glues and adhesives





Version 1.0 Page 47 of 131



Criterion 7: Flame retardants

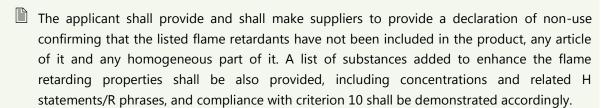
The flame retardants in Table 15 shall not be added intentionally to the product, any article of it and any homogeneous part of it:

Table 15: Flame retardants covered by this criterion

Name	CAS number	Acronym
Decabromodiphenlyether	1163-19-5	decaBDE
Hexabromocyclododecane	25637-99-4	HBCD/HBCDD
Octabromodiphenylether	32536-52-0	octaBDE
Pentabromodiphenylether	32534-81-9	pentaBDE
Polybrominated biphenyls	59536-65-1	PBBs
Short chain chlorinated paraffins (C10-C13)	85535-84-8	SCCP
Tris-(2,3-dibromopropyl)-phosphate	126-72-7	TRIS
Tris(2-chloroethyl)phosphate	115-96-8	TCEP
Tris-(aziridinyl)-phosphinoxide	545-55-1	TEPA

The use of any flame retardant shall be compliant with criterion 10 on hazardous substances.

Required documentation for Assessment and verification: Flame Retardants







Notes:

Articles are defined by REACH and CLP as 'an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition'. The article could be composed of further articles, parts, accessories, consumables and packaging; Whilst there is no specific definition of "homogenous parts" in REACH 5 or CLP 6 , the RoHS Directive 2011/65/EU

Version 1.0 Page 48 of 131

⁵ EC Regulation (EC) No 1907/2006



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

defines a homogenous material as: "one material of uniform composition throughout or a material, consisting of a combination of materials, that cannot be disjointed or separated into different materials by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes".

Version 1.0 Page 49 of 131

 $^{^{\}rm 6}$ European Regulation (EC) No 1272/2008



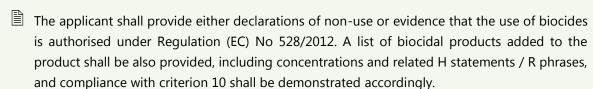
Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Criterion 8: Biocides

8.1 Production

The use of any biocidal active substance in the product shall have to be authorised under Regulation (EC) No 528/2012 of the European Parliament and of the Council5 (list available at: http://ec.europa.eu/environment/biocides/annexi_and_ia.htm) and shall be compliant with criterion 10 on hazardous substances.

Required documentation for Assessment and verification: Production of biocides





8.2 Transportation

Chlorophenols (their salts and esters), polychlorinated biphenyl (PCB), organo-tin compounds (including TBT, TPhT, DBT and DOT) and diemthyl fumarate (DMFu) shall not be used during the transportation or storage of the product, any article of it and any homogeneous part of it.



 \bigcirc Note: TBT= tributyltin, TPhT = triphenyltin, DBT = dibutyltin and DOT = Dioctyltin

Required documentation for Assessment and verification: Transportation of biocides

The applicant shall provide and shall make suppliers to provide a declaration of non-use, as appropriate, confirming that the listed substances have not been used during the transportation or storage of the product, any article and any homogeneous part of it. A list of biocidal products added to the product shall be also provided, including concentrations and related H statements / R phrases, and compliance with criterion 10 shall be demonstrated accordingly.

Declaration of biocides (transportation) by applicant or parts supplier/manufacturer (criterion 8.2)

Version 1.0 Page 50 of 131



Criterion 9: Plasticizers

The plasticizers in Table 16 shall not be added intentionally to the product, any article of it and to any homogeneous part of it.



Note: Plasticizers are substances added to plastics to increase their plasticity or fluidity.

Table 16: Plasticizers covered by this criterion

Name	CAS number	Acronym
Di-iso-nonylphtalate*	28553-12-0; 68515-48-0	DINP
Di-n-octylphthalate	117-84-0	DNOP
Di(2-ethylhexyl)-phthalate	117-81-7	DEHP
Diisodecylphthalate*	26761-40-0; 68515-49-1	DIDP
Butylbenzylphthalate	85-68-7	ВВР
Dibutuylphthalate	84-74-2	DBP
Di-iso-butylphthalate	71888-89-6	DIBP
Di-C6-8-branched alkyphthalates	68515-42-4	DIHP
Di-C7-11-branched alkylphthalates	84-75-3	DHNUP
Di-n-hexylphthalate	117-82-8	DHP
Di-(2-methoxyethyl)-phthalate	71888-89-6	DMEP
*only for cot mattresses		<u> </u>

only for cot mattresses

The sum of the prohibited plasticizers shall be lower than 0.10 % by weight. The use of any plasticizer shall be compliant with criterion 10 on hazardous substances.

Required documentation for Assessment and verification: Plasticizers



The applicant shall provide and shall make suppliers to provide a declaration of non-use confirming that the listed substances have not been used in the product, any article of it and any homogeneous part of it. Safety data sheets for the formulation of polymers may be requested to confirm that the listed substances have not been included in the product. A list of plasticizers added to the product shall be provided, including concentrations and related H statements / R phrases, and compliance with criterion 10 shall be demonstrated accordingly. Additional verification for the total content of phthalates may be required in accordance with ISO 14389 when quality of information is considered insufficient.

Version 1.0 Page 51 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)



Declaration re: plasticizers by applicant or parts supplier/manufacturer (criterion 9)

Version 1.0 Page 52 of 131



Criterion 10: Excluded or limited substances and mixtures

(a) Hazardous substances and mixtures

The EU Ecolabel may not be awarded if the product or any article of it, as defined in Article 3(3) of Regulation (EC) No 1907/2006 of the European Parliament and of the Council6, or any homogenous part of it contains a substance or mixture meeting the criteria for classification with the hazard statements or risk phrases specified in, in accordance with Regulation (EC) No 1272/2008 or Council Directive 67/548/EEC7, or contains a substance or mixture referred to in Article 57 of Regulation (EC) No 1907/2006, unless specific derogation has been granted.

The most recent classification rules adopted by the Union shall take precedence over the listed hazard classifications and risk phrases. Applicants shall therefore ensure that any classifications are based on the most recent classification rules.

The hazard statements and the risk phrases in Table 17 generally refer to substances. However, if information on substances cannot be obtained, the classification rules for mixtures apply.

The use of substances or mixtures which change their properties upon processing (e.g. become no longer bioavailable or undergo chemical modification) so that the identified hazards no longer apply are exempted from the above requirements. This shall include for instance modified polymers and monomers or additives which become covalently bonded within plastic coatings.

Table 17: Hazard statements relevant to this criterion

Hazard Statement ¹	Risk Phrase ²
H300 Fatal if swallowed	R28
H301 Toxic if swallowed	R25
H304 May be fatal if swallowed and enters airways	R65
H310 Fatal in contact with skin	R27
H311 Toxic in contact with skin	R24
H330 Fatal if inhaled	R23/26
H331 Toxic if inhaled	R23
H340 May cause genetic defects	R46
H341 Suspected of causing genetic defects	R68
H350 May cause cancer	R45
H350i May cause cancer by inhalation	R49
H351 Suspected of causing cancer	R40
H360F May damage fertility	R60
H360D May damage the unborn child	R61
H360FD May damage fertility. May damage the unborn child	R60/61/60-61
H360Fd May damage fertility. Suspected of damaging the unborn child	R60/63

Version 1.0 Page 53 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Hazard Statement ¹	Risk Phrase ²
H360Df May damage the unborn child. Suspected of damaging fertility	R61/62
H361f Suspected of damaging fertility	R62
H361d Suspected of damaging the unborn child	R63
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.	R62-63
H362 May cause harm to breast fed children	R64
H370 Causes damage to organs	R39/23/24/25/26/27/28
H371 May cause damage to organs	R68/20/21/22
H372 Causes damage to organs	R48/25/24/23
H373 May cause damage to organs	R48/20/21/22
H400 Very toxic to aquatic life	R50
H410 Very toxic to aquatic life with long-lasting effects	R50-53
H411 Toxic to aquatic life with long-lasting effects	R51-53
H412 Harmful to aquatic life with long-lasting effects	R52-53
H413 May cause long-lasting effects to aquatic life	R53
EUH059 Hazardous to the ozone layer	R59
EUH029 Contact with water liberates toxic gas	R29
EUH031 Contact with acids liberates toxic gas	R31
EUH032 Contact with acids liberates very toxic gas	R32
EUH070 Toxic by eye contact	R39-41
H317 (Sub-category 1A): May cause allergic skin reaction (trigger concentration $\geq 0.1 \% \text{ w/w}$) ³	R43
H317 (Sub-category 1B): May cause allergic skin reaction (trigger concentration ≥1.0 % w/w ³	
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled	R42

In accordance with Article 6(7) of Regulation (EC) No 66/2010 the substances in Table 18 are specifically derogated from the requirements set out in criterion 10.1 and in accordance with the derogation conditions set out below. For each substance all derogation conditions shall be met for the specified hazard classifications

Version 1.0 Page 54 of 131

¹According to Regulation (EC) No 1272/2008. ² According to Directive 67/548/EEC and Directives 2006/121/EC and 1999/45/EC.

³ According to Commission Regulation (EU) No 286/20118



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Table 18: Derogated substances and conditions

Substances / Groups of substances	Derogated classification	Derogation conditions
Antimony Trioxide - ATO	H351	ATO shall be used as catalyst in polyester or as flame retardant synergist in textiles for backcoatings. Emissions to air in the workplace where ATO is applied shall meet an eight hour occupational exposure limit value of 0.5 mg/m3.
Nickel	H317, H351, H372	Nickel shall be contained in stainless steel.
Dyestuff for dyeing and non- pigment printing in textiles	H301, H311, H331, H317, H334	Dust free dye formulations or automatic dosing and dispensing of dyes shall be used by dye houses and printers to minimise worker exposure.
	H411, H412, H413	The use of reactive, direct, vat, sulphur dyes* with these classifications shall meet at least one of the following conditions: - High affinity dyes are used; - Colour matching instrumentation is used; - Standard Operating Procedures for the dyeing process are used; - Colour removal is used in wastewater treatment (see criterion 5.7). Solution dyeing processes are used; - Digital inkjet printing processes are used; The use of solution dyeing and/or digital printing are exempted from these conditions.

Version 1.0 Page 55 of 131



EU ECOLABEL BED MATTRESSES USER MANUAL Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Substances / Groups of	Derogated classification	Derogation conditions
substances		
Flame retardants used in	H317 (1B), H373, H411, H412,	The product shall be designed in
textiles	H413	order to meet fire protection
		requirements in ISO, EN, Member
		State or public sector procurement
		standards and regulations.
		The product shall meet the
		requirements for durability of
		function (see Criterion 5.9)
Optical brighteners	H411, H412, H413	Optical brighteners shall only be
		applied as additives during the
		production of acrylic, polyamide and
		polyester fibres.
Water, dirt and stain repellents	H413	The repellent and its degradation
		products shall be readily
		biodegradable and non-
		bioaccumulative in the aquatic
		environment, including aquatic
		sediment.
Auxilliaries used in textiles	H301, H371, H373, H334,	Recipes shall be formulated using
(comprising: Carriers, Levelling	H411, H412, H413, EUH070	automatic dosing systems and
agents, Dispersing agents,		processes shall follow Standard
Surfactants, Thickeners,		Operating Procedures.
(Binders)		
	H311, H331, H317 (1B)	Residual auxiliaries classified
		accordingly shall not be present at
		concentrations of greater than 1.0 %
		w/w on the final product.
Glues and adhesives	H304, H341, H362, H371,	Glue and adhesives shall respect
	H373, H400, H410, H411,	conditions set in criterion 6.
	H412, H413, EUH059,	
	EUH029, EUH031, EUH032,	
	EUH070, H317, H334	

Version 1.0 Page 56 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Substances / Groups of	Derogated classification	Derogation conditions
substances		

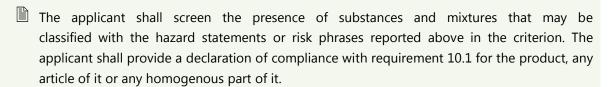
* Reactive and direct dyes refer to the mechanism by which a dye is attached to a substrate. Reactive dyes chemically bond to the substrate material, direct dyes are held in place by physical forces and do not chemically bond to the substrate materials. Vat dye refers to a class of dye that is chemically attached to cellulosic fibres, which is attached first then altered to produce the desired colour. Sulphur dyes are attached in a process using sodium sulphide or sodium hydrosulfite.

Required documentation for Assessment and verification: Hazardous substances and mixtures



The applicant shall provide the bill of materials of the product, including a list with all articles and homogeneous part of it

Note: the bill of materials should be as detailed as possible, identifying the composition of the mattress, materials and all substances added to each material. For instance if cotton is present, it should be identified which additives or other substances are present in the final form.



Applicants shall select the appropriate forms of verification. The main forms of verification are foreseen as follows:

- Articles manufactured according to a specific chemical formulation (e.g. latex and PUR foams): Safety Data Sheets shall be provided for the final article or for the substances and mixtures composing the final article above a cut-off limit of 0.10 % w/w.
- Homogenous parts and any associated treatments or impurities (e.g. plastic and metal parts): Safety Data Sheets shall be provided for the materials composing that part of the product and for substances and mixtures used in the formulation and treatment of the materials remaining in the final part above a cut-off limit of 0.10 % w/w.
- Chemical recipes used to impart a specific function to the product or to textile components of the product (e.g. glues and adhesives, flame retardants, biocides, plasticizers, dyes): Safety Data Sheets shall be provided for substances and mixtures used in the assembly of the final product or substances and mixtures applied to textile components during production, dyeing, printing and finishing processes and remaining in the textile components.

Version 1.0 Page 57 of 131

Ecolabel www.ecolabel.eu

EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

The declaration shall include related documentation, such as declarations of compliance signed by the suppliers, on the non-classification of the substances, mixtures or materials with any of the hazard classes associated to the hazard statements or risk phrases referred in the list above in accordance with Regulation (EC) No 1272/2008, as far as this can be determined, as a minimum, from the information meeting the requirements listed in Annex VII to Regulation (EC) No 1907/2006

The information provided shall relate to the forms or physical states of the substances or mixtures as used in the final product.

- The following technical information shall be provided to support the declaration of classification or non-classification for each substance and mixture:
 - For substances that have not been registered under Regulation (EC) No 1907/2006 or which do not yet have a harmonised CLP classification: information meeting the requirements listed in Annex VII to that Regulation;
 - (ii) For substances that have been registered under Regulation (EC) No 1907/2006 and which do not meet the requirements for CLP classification: information based on the REACH registration dossier confirming the non-classified status of the substance;
 - (iii) For substances that have a harmonised classification or are self-classified: Safety Data Sheets where available. If these are not available or the substance is self-classified then information shall be provided relevant to the substances hazard classification according to Annex II to Regulation (EC) No 1907/2006;
 - (iv) In the case of mixtures: Safety Data Sheets where available. If these are not available then calculation of the mixture classification shall be provided according to the rules under Regulation (EC) No 1272/2008 together with information relevant to the mixtures hazard classification according to Annex II to Regulation (EC) No 1907/2006.
- Safety Data Sheets (SDS) shall be completed in accordance with the guidance in Section 10, 11 and 12 of Annex II to Regulation (EC) 1907/2006 (Requirements for the Compilation of Safety Data Sheets). Incomplete SDS shall require supplementing with information from declarations by chemical suppliers.
- Information on intrinsic properties of substances may be generated by means other than tests, for instance through the use of alternative methods such as in vitro methods, by quantitative structure activity models or by the use of grouping or read-across in accordance with Annex XI to Regulation (EC) No 1907/2006. The sharing of relevant data across the supply chain is strongly encouraged.
- Where substances used are derogated according to their hazard classification then the declaration shall specifically identify those derogated substances and provide supporting evidence showing how the derogation conditions are met.

Version 1.0 Page 58 of 131

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

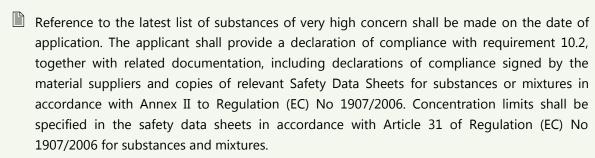


Declaration re: hazardous substances and mixtures by applicant or parts supplier/manufacturer (criterion 10 a)

(b) Substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006

No derogation from the exclusion in Article 6(6) of Regulation (EC) No 66/2010 shall be given concerning substances identified as substances of very high concern and included in the list provided for in Article 59(1) of Regulation (EC) No 1907/2006, present in mixtures, in an article or in any homogeneous part of the product in concentrations > 0.10 % by weight.

Required documentation for Assessment and verification: Substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006





Version 1.0 Page 59 of 131



mmission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Criterion 11: Emission of specified volatile organic compounds (SVOCs, VOCs, VVOCs) from the mattress

The contribution of mattresses to the VOC content of the indoor air shall not exceed the final values reported below, for a period of 7 days or, alternatively, 28 days.

Values are calculated with the emission test chamber method and with reference to the European Reference Room, by analogy with the procedure specified in the 'Health-related Evaluation Procedure for Volatile Organic Compounds Emissions from Building Products' developed by the AqBB (2012 version available at:

http://www.umweltbundesamt.de/sites/default/files/medien/377/dokumente/agbb_evaluation_ scheme 2012.pdf)

Substance	Final value 7th day	Final value 28th day
Formaldehyde	< 0.06 mg/m3	< 0.06 mg/m3
Other aldehydes	< 0.06 mg/m3	< 0.06 mg/m3
VOCs (total)	< 0.5 mg/m3	< 0.2 mg/m3
SVOCs (total)	< 0.1 mg/m3	< 0.04 mg/m3
Each detectable compound	< 0.001 mg/m ³	< 0.001 mg/m ³
classified as categories C1A or		
C1B according to the		
Regulation (EC) No 1272/2008		

Required documentation for Assessment and verification: Emission of specified volatile organic compounds (SVOCs, VOCs, VVOCs) from the mattress



Assessment and verification: the applicant shall perform a test chamber analysis in accordance with the standard EN ISO 16000-9. The analysis of formaldehyde and other aldehydes shall comply with the standard ISO 16000-3; the analysis of VOCs and SVOCs shall comply with the standard ISO 16000-6. Testing following the standard CEN/TS 16516 shall be considered equivalent to those of the ISO 16000 series of standards.

Test results shall be calculated for an area specific ventilation rate "q" = 0.5 m³/m²h, corresponding to a loading factor "L" of 1 m²/m³ and an air change rate "n" of 0.5 per hour. In all these cases, the total surface of all surfaces (upside, downside and edges) of the mattress determine the area used for calculation of the loading factor. The test shall be performed on an entire mattress. Should this not be possible for any reason, any of the following alternative

Version 1.0 Page 60 of 131

Ecolabel

EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

procedures of testing may be applied:

- 1. Performing the test on a representative sample of the mattress (i.e. one half, one quarter or one eighth); cut edges shall be closed airtight by appropriate means. In order to provide a conservative estimation of the concentration values expected from the entire mattress, concentrations registered with the sample shall be scaled-up by volume (i.e. emissions shall be multiplied by a factor 2, 4 or 8);
- 2. Performing the test for each separate element forming part of the mattress. In order to provide a conservative estimation of the concentration values expected from the entire mattress, contributions registered with single components shall be combined using this formula $C_M = \sum \omega i.C_i$ where:
 - "C_M" (µg.m⁻³) is the overall contribution from the entire mattress;
 - "C_i" (µq.m⁻³.kg_i⁻¹) is the contribution per unit of mass given by each-element "i" forming part of the mattress;
 - " ω_i " (kg_i) is the weight of the element "i" in the entire mattress.

The emissions of all elements of the mattress shall be summed up without taking into account any adsorption or barrier effects (worst-case approach).



Declaration re: emission of specified volatile organic compounds (SVOCs, VOCs, VVOCs) by applicant (criterion 11)

Version 1.0 Page 61 of 131



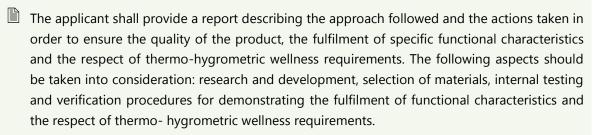
Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Criterion 12: Technical performance

12.1 Quality

The mattress shall be designed in a way that a quality product meeting the needs of the consumer is placed on the market.

Required documentation for Assessment and verification: Quality





Note: Thermo-hygrometric wellness requirements refer to the heat and moisture transfer properties of a mattress, which form an essential component of a mattress' function.

12.2 Durability

Mattresses shall present the following functional characteristics:

- Loss of height < 15 %
- Loss of firmness < 20 %

Required documentation for Assessment and verification: Durability

The applicant shall provide a test report describing the results obtained following the test method EN 1957. The losses of height and firmness refer to the difference between the measurements made initially (at 100 cycles) and after the completion (30 000 cycles) of the durability test.

Declaration re: technical performance (durability) by applicant (criterion 12.2)

Version 1.0 Page 62 of 131

Ecolabel www.ecolabel.eu

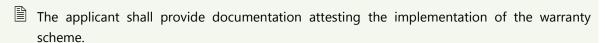
EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

12.3 Warranty

A list of recommendations on how to use, maintain and dispose the mattress shall be reported in the warranty documentation. The warranty for the mattress shall be valid for a period of at least 10 years. This prescription shall not be required for cot mattresses.

Required documentation for Assessment and verification: Warranty



Declaration re: technical performance (warranty) by applicant (criterion 12.3)

Version 1.0 Page 63 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Criterion 13: Design for disassembly and recovery of materials

The manufacturer shall demonstrate that the mattress can be dismantled for the following purposes:

- undertaking repairs and replacements of worn-out parts,
- upgrading older or obsolete parts,
- separating parts and materials for the potential recycle of them.

Required documentation for Assessment and verification: Warranty

- A report shall be submitted with the application detailing the dismantling of the mattress and the possible disposal of each part. For instance, the following actions could facilitate the dismantling of the mattress: preferring sewing to the application of glue; using removable covers; using single and recyclable materials for each homogeneous part.
- Declaration re: design for disassembly and recovery of materials by applicant (criterion 13)

Version 1.0 Page 64 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Criterion 14: Information appearing on the EU Ecolabel

The EU Ecolabel can be applied both on the packaging and on the product. Box 2 of the EU Ecolabel shall contain the following text:

- 'High-quality long-lasting product'
- 'Hazardous substances restricted'
- 'Indoor air pollution reduced'

The following text shall moreover appear:

For more information on why this product has been awarded the EU Ecolabel, please visit http://ec.europa.eu/environment/ecolabel/

Required documentation for Assessment and verification: Information appearing on the EU Ecolabel

The applicant shall provide a declaration of compliance and visual evidence.

Declaration re: information appearing on the EU Ecolabel by applicant (criterion 14)

Version 1.0 Page 65 of 131

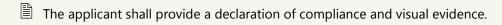


Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Criterion 15: Additional information to consumers

The applicant shall provide consumers in written or audio-visual form with a list of recommendations on how to use, maintain and dispose the mattress.

Required documentation for Assessment and verification: Additional information for consumers



Declaration re: additional information to consumers by applicant (criterion 15)

Version 1.0 Page 66 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Part C: Application Form

Please contact your Competent Body to learn how your completed application form should be submitted.

See section 'Where do I apply?' for further details of where to send your application once completed.

Applicants should also provide a technical dossier of laboratory test reports and send this **in duplicate** to the Competent Body, and keep an up-to-date file on their premises showing continuing compliance with the criteria. Equivalent test methods, others than the ones indicated by the formal Commission Decision may be used provided the test methods have been approved by the awarding Competent Body.

Version 1.0 Page 67 of 131



EU ECOLABEL BED MATTRESSES USER MANUAL Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Applicant information	
Applicant's full company name and address:	
Contact person:	
Position:	
Phone:	
Fax:	
Email:	
Website:	
VAT number or equivalent if relevant:	
If relevant, existing licence number: XX/YYY	
In what capacity are you applying for the EU Ecolabel (tick as appropriate):	Manufacturer□
zeotaset (tiek as appropriate).	Importer□
	Service provider□
	Wholesaler□
	Retailer□
Product Information	
What product group are you applying for?	
Please give general specification of the product(s), including registered name(s) ie. Trade name, trademarks, paint type/description	
Name and address of manufacturing site(s) (if different from above)	
In case the product is made outside the European Economic Area market (European Union plus Iceland, Lichtenstein and Norway), please confirm the country where it has been or will be placed on the market.	
Please state EU countries in which this product is sold in the same form (if sold under different names, please state names to be registered)	

Version 1.0 Page 68 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Information on the application	
Is this the first application for the EU Ecolabel for the product(s) specified above	Yes□ No□
If no, please state when and where the first application was made, and with what outcome	
Is this an application to add a new product (i.e. with a technical formulation not covered by an existing Ecolabel that you hold) to a licence for a product range already covered by an Ecolabel? (if so, please give details of the existing Ecolabel)	Yes□ No□ Details:
Please indicate if an application for the same product has been successful under other environment label schemes (e.g. the Nordic Ecolabel or Blue Angel)	Yes□ No□
Does the laboratory where the tests were conducted meet the general requirements expressed in standard EN ISO 17025	Yes□ No□

Application fees:

An invoice will be sent when the application and the attached declarations are received. Before the application can be processed, the applicant must pay the application fee relevant for the company. Please refer to your Competent Body for fees.

Version 1.0 Page 69 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

This declaration to be used so that the Competent Body can set the appropriate application and eventually annual licence fees for the EU Ecolabel cf. Regulation (EC) No 66/2010 of The European Parliament and of The Council of 25 November 2009 on the EU Ecolabel appendix III.

All questions below have to be answered before handling of the application can begin.

Declaration: Type of Company		
Is the company a micro sized company as defined in the Commission's Recommendation 2003/361/EC - i.e. under 10 employees and an annual turnover or total annual balance not exceeding 2 mill. Euro?		Yes □ No □
Is the company a small or medium sized company as defined in the Commission's Recommendation 2003/361/EC – i.e. under 250 employees and an annual turnover not exceeding 50 mill. Euro or total annual balance not exceeding 43 mill. Euro?		Yes □ No □
Is the company situated in a developing country (as defined in the OECD's Development Assistance Committee's list of countries receiving development aid)?		Yes □ No □
Is the company registered under EMAS and/or certified under ISO 14001 and has the company in its environmental policy, committed to maintain compliance of its EU Ecolabel products with the EU Ecolabel product group criteria throughout the contract's period of validity? ⁷		Yes □ No □
Date:		
Company Name:		
Company Stamp:		
Responsible person's signature		
Print in capitals the name of above signatory		

Version 1.0 Page 70 of 131

⁷ If confirmed the company must send a copy of the annual affirmative environmental statement (EMAS) or valid ISO 14001 certificate and copy of the companies environmental policy and objectives (ISO 14001) in connection with the application and information on the annual turnover.



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Applicant's undertaking

As the applicant for an EU Ecolabel, I hereby declare that:

I understand and accept the provisions of Regulation EC No. 66 / 2010 on the EU Ecolabel scheme, and in particular Article 6, paragraph 6, which states that the EU Ecolabel may not be awarded to goods containing substances or preparations/ mixtures meeting the criteria for classification as toxic, hazardous to the environment, carcinogenic, mutagenic or toxic for reproduction (CMR), in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures [11], nor to goods containing substances referred to in Article 57 of Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency. (Note that article 7 enables the Commission to adopt measures to grant derogations from paragraph 6 under certain conditions);

I undertake to ensure that the product compiles with the EU Ecol	label criteria at all times and to
notify [*] immediately of any significant
modification to it or to the production processes.	
I take responsibility for the correct and proper use of the EU Ecol	abel logo.
Signed:	
Name in capitals:	
Position in company:	
Date:	
Company stamp:	

Version 1.0 Page 71 of 131

^{*} Insert name of Competent Body



Part D: Declarations

Summary of declarations:

Click to view and print

<u>Declaration re: latex foam -restricted substances (criterion 1.1)</u>

Declaration re: latex foam - SVOCs, VOCs, VVOCs (criterion 1.2)

Declaration re: latex foam - dyes (criterion 1.3)

<u>Declaration re: PUR foam - restricted substances (criterion 2.1)</u>

Declaration re: PUR foam - SVOCs, VOCs, VVOCs (criterion 2.2)

Declaration re: PUR foam - dyes (criterion 2.3)

Declaration re: PUR foam - isocyanates (criterion 2.4)

Declaration re: PUR foam - blowing agents (criterion 2.5)

Declaration re: wire and springs - degreasing (criterion 3.1)

Declaration re: wire and springs - galvanisation (criterion 3.2)

<u>Declaration re: coconut fibres – rubberised (criterion 4)</u>

Declaration re: textiles - general requirements on hazardous substances (criterion 5.1)

Declaration re: textiles - auxiliaries used in preparations and formulations for mattress covers

(applicant) (criterion 5.2a)

<u>Declaration re: textiles - auxiliaries used in preparations and formulations for mattress covers (textile manufacturer/supplier) (criterion 5.2b)</u>

Declaration re: textiles - auxiliaries used in preparations and formulations for filling materials made of wool (criterion 5.2c)

<u>Declaration re: textiles - surfactants, fabric softeners and complexing agents in wet processes (criterion</u> 5.3)

<u>Declaration re: textiles - bleaching of pulp, yarns, fabrics and end products for for non man-made cellulose fibres (criterion 5.4a)</u>

<u>Declaration re: textiles - bleaching of pulp, yarns, fabrics and end products for for man-made cellulose fibres (criterion 5.4b)</u>

Declaration re: textiles - dyes (criterion 5.5a)

Declaration re: textiles - azo dyes (criterion 5.5b)

Declaration re: textiles - extractable metals (criterion 5.6)

Declaration re: textiles - water, stain and oil repellents (criterion 5.7)

Declaration re: textiles - wastewater discharges from wet processing (criterion 5.8)

<u>Declaration re: textiles - mechanical resistance (criterion 5.9)</u>

Declaration re: textiles - durability of flame retardant function (criterion 5.10)

Version 1.0 Page 72 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration re: textiles - dimensional change (criterion 5.11)

Declaration re: glues and adhesives (criterion 6)

Declaration re: flame retardants (criterion 7)

<u>Declaration re: biocides - production (criterion 8.1)</u> <u>Declaration re: biocides - transport (criterion 8.2)</u>

Declaration re: plasticizers (criterion 9)

Declaration re: hazardous substances and mixtures (criterion 10a)

Declaration re: substances listed in accordance with article 59(1) of Regulation (EC) no 1907/2006

(criterion 10b)

Declaration re: emission of specified volatile organic compounds (SVOCs, VOCs, VVOCs) (criterion 11)

<u>Declaration re: technical performance – quality (criterion 12.1)</u>

<u>Declaration re: technical performance – durability (criterion 12.2)</u>

<u>Declaration re: technical performance – warranty (criterion 12.3)</u>

Declaration re: design for disassembly and recovery of materials (criterion 13)

<u>Declaration re: information appearing on the EU Ecolabel (criterion 14)</u>

Declaration re: additional information to consumers (criterion 15)

Version 1.0 Page 73 of 131



Declaration: Criterion 1.1 – Latex foam: restricted substances (Latex foam manufacturer)

NB. This declaration only needs to be made if latex contributes to more than 5% of the total weight of the mattress.

I, the undersigned, hereby declare that the latex foam does/does not (please delete as appropriate) contain the following substances.

Restricted group of substances	Assessment and verification procedure	Limit values (ppm)	Test results (ppm)	Information to provided
Chlorophenols.	Gas chromatography analysis of chlorophenols extracted in the form of phenol,	Mono- and di- chlorinated phenols (salts and esters) – 1.0		Test results.
	sodium salt or esters and detected with mass spectrometer or electron capture detector.	Others – 0.1		
Heavy Metals.		As (Arsenic) – 0.5		Test results and
	equivalent), using specified testing	Cd (Cadmium) – 0.1		description of testing methods used.
	methodology	Co (Cobalt) – 0.5		
		Cr (Chromium), total – 1		
		Cu (Copper) – 2		
		Hg (Mercury) – 0.02		
		Ni (Nickel) – 1		
		Pb (Lead) – 0.5		
Pesticides – tests only	Report specifying results of gas	Aldrin – 0.04		Test results.
required if the foam	chromatography analysis after	o,p-DDE – 0.04		
comprises 20%	extraction.	p,p-DDE – 0.04		

Version 1.0 Page 74 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 1.1 – Latex foam: restricted substances (Latex foam manufacturer)

(Latex foam manufac	turer)	
or more natural latex.	o,p-DDD – 0.04	
	p,p-DDD – 0.04	
	o,p-DDT – 0.04	
	p,p-DDT – 0.04	
	Diazinone – 0.04	
	Dichlorfenthion – 0.04	
	Dichlorvos – 0.04	
	Dieldrin – 0.04	
	Endrin – 0.04	
	Heptachlor – 0.04	
	Heptachlorepoxide – 0.04	
	Hexachlorbenzene – 0.04	
	Hexachlorcyclohexa ne – 0.04	
	α- Hexachlorcyclohexa ne – 0.04	
	β- Hexachlorcyclohexa ne – 0.04	
	γ- Hexachlorcyclohexa ne (Lindane) – 0.04	
	δ- Hexachlorcyclohexa ne – 0.04	
	Malathion – 0.04	
	Methoxichlor – 0.04	

Version 1.0 Page 75 of 131



EU ECOLABEL BED MATTRESSES USER MANUAL Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 1.1 – Latex foam: restricted substances (Latex foam manufacturer)				
		Mirex – 0.04 Parathion-ethyl		
		Parathion-methyl		
Other specific substances.	Report specifying results of analysis by gas chromatography using headspace sampling	Butadiene - 1		Test results.
Signature of person bearing legal responsibility:				
Company Name	in CAPITALS:			
Date:				
Company Stamp:				

Version 1.0 Page 76 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 1.2 - Latex foam: SVOCs, VOCs, VVOCs (Latex foam manufacturer)

NB. This declaration only needs to be made if latex contributes to more than 5% of the total weight of the mattress.

I, the undersigned, hereby declare that the latex foam does/does not (please delete as appropriate) contain the following substances. Where it does the amounts are shown below:

Substance	Assessment and Verification procedure	Test results (mg/mg3)	Information to be provided
SVOCs, VOCs, VVOCs	ISO 16000-9 or		Test reports showing results
Formaldehydes and other aldehydes – 0.005	equivalent CEN/TS 16516 standard using the specified testing methodology followed by analysis according to ISO 16000-6.		for each substance and description of test methods employed.
Nitrosamines – 0.0005	BGI 505-23 or equivalent.		
Signature of person bearing	ng legal responsibility:		
Company Name in CAPITA	ALS:		
Date:			
Company Stamp:			

Version 1.0 Page 77 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 1.3 - Latex foam: Dyes (Latex foam manufacturer)

NB. This declaration only needs to be made if latex foam contributes to more than 5% of the total weight of the mattress.

I, the undersigned, hereby declare that the latex foam does/does not (please delete as appropriate) contain dyes. Where they are used, the declaration(s) for Criterion 5.5 have been completed.

Version 1.0 Page 78 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration (a): Criterion 2.1 – PUR foam: Restricted substances (PUR foam manufacturer)

NB. This declaration only needs to be made if PUR foam contributes to more than 5% of the total weight of the mattress.

I, the undersigned, hereby declare that the PUR foam does/does not (please delete as appropriate) contain the following substances.

Where any of these substances are included, the amounts are as shown below:

	cted substances CAS number, element symbol)	Assessment and verification procedure	Limit values	Test results	Information to be provided
Heavy	As (Arsenic)	DIN 38414-S4 (or equivalent),	0.2 ppm		Test reports
Metals	Cd (Cadmium)	using specified testing methodology	0.1 ppm		showing results for each
	Co (Cobalt)	methodology	0.5 ppm		substance and
	Cr (Chromium), total		1.0 ppm		description of
	Cr VI (Chromium VI)		0.01 ppm		test methods
	Cu (Copper)		2.0 ppm		employed.
	Hg (Mercury)		0.02 ppm		
	Ni (Nickel)		1.0 ppm		
	Pb (Lead)		0.2 ppm		
	Sb (Antimony)		0.5 ppm		
	Se (Selenium)		0.5 ppm		
Plasticizers	Di-iso-nonylphthalate (DINP, 28553-12-0) Di-n-octylphthalate (DNOP, 117-84-0) Di(2-ethylhexyl)- phthalate (DEHP, 117-81-7) Di-iso-decylphthalate (DIDP, 26761-40-0) Butylbenzylphthalate (BBP, 85-68-7) Dibutylphthalate (DBP, 84-74-2)	For the total amount of plasticizers the applicant shall provide a report presenting the results of the following test procedure. The sample shall be a composite of 6 pieces to be taken from beneath each samples face (to a maximum of 2 cm from the surface). Extraction shall be performed with dichloromethane using validated method and followed by analysis with gas chromatography—mass spectrometry (GC/MS) or	0.01 % w/w (sum)		Test reports showing results for each substance and description of test methods employed.
TDA and	2,4-toluenediamine (2,4-TDA,95-80-7)	high-performance liquid chromatography (HPLC/UV). The sample shall be a composite of 6 pieces to be	5.0 ppm		Test reports showing results

Version 1.0 Page 79 of 131



Declaration (a): Criterion 2.1 – PUR foam: Restricted substances (PUR foam manufacturer)

MDA	4,4'-	taken from beneath each	5.0 ppm	for each
	diaminodiphenylmetha	samples face (to a maximum of	0.0 pp	substance and
	ne (4,4'-MDA, 101-77-	2 cm from the surface).		description of
	9)	Extraction shall be performed		test methods
		with 1 % aqueous acetic acid		employed.
		solution. Four repeat extractions of the same foam		
		sample shall be performed		
		maintaining the sample weight		
		to volume ratio of 1:5 in each		
		case. The extracts shall be		
		combined, made up to a		
		known volume, filtered and		
		analysed by high- performance liquid chromatography (HPLC-		
		UV) or HPLC-MS. If HPLC-UV is		
		performed and interference is		
		suspected, reanalysis with high		
		performance liquid		
		chromatography–mass		
		spectrometry (HPLC-MS) shall be performed.		
Tinorganic	Tributyltin (TBT)	The sample shall be a	50 ppb	Test reports
substances	Tribacytem (TBT)	composite of 6 pieces to be	Jo ppb	showing results
Substances		taken from beneath each		for each
		sample face (to a maximum of		substance and
		2 cm from the surface).		description of
		Extraction shall be performed		test methods
		for 1 hour in an ultrasonic bath at room temperature. The		employed.
		extracting agent shall be a		
		mixture composed as it		
	Dibutyltin (DBT)	follows: 1750 ml methanol + 300 ml acetic acid + 250 ml	100 ppb	
	Monobutyltin (MBT)	buffer (pH 4.5). The buffer shall	100 ppb	
	Tetrabutyltin (TeBT)	be a solution of 164 g of	-	
	Monooctyltin (MOT)	sodium acetate in 1200 ml of water and 165 ml acetic acid,	-	
	Dioctyltin (DOT)	to be diluted with water to a	-	
	Tricyclohexyltin	volume of 2000 ml. After	-	
	(TcyT)	extraction the alkyl tin species		
	Triphenyltin (TPhT)	shall be derivatized by adding sodium tetraethylborate	-	
	Sum of all tinorganic	solution in tetrahydrofuran	500 ppb	
	substances	(THF). The derivative shall be		
		extracted with n-hexane and		
		the sample shall be submitted		
		to a second extraction		

Version 1.0 Page 80 of 131



EU ECOLABEL BED MATTRESSES USER MANUAL Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration (a): Criterion 2.1 – PUR foam: Restricted substances			
(PUR foa	m manufacturer)		
*Nitrites are su	procedure. Both hexal extracts shall be comb further used to detern organotin compounds chromatography with selective detection in modus	mbined and ermine the ends by gas th mass in SIM	
Signature of	person bearing legal responsibility:		
Company No	ame in CAPITALS:		
Date:			
Company Stamp:			

Version 1.0 Page 81 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration (b): Criterion 2.1 – PUR Foam: Restricted substances (not intentionally added).

(PUR foam manufacturer)

NB. This declaration only needs to be made if PUR foam contributes to more than 5% of the total weight of the mattress.

I, the undersigned, hereby declare that the following substances have not been intentionally added.

Restricted group of substances	Substance		
Biocides	Any substance restricted as per Criterion 8.1.		
Plasticizers	Phthalates – other than those named in the preceding declaration (above 2.1b)		
Other	Chlorinated or brominated dioxines or furans		
	Chlorinated hydrocarbons (1,1,2,2-tetrachloro-ethane, pentachloroethane, 1,1,2-trichloro-ethane, 1,1-dichloroethylene)		
	Chlorinated phenols (PCP, TeCP, 87-86-5)		
	Hexachlorocyclohexane (58-89- 9)		
	Monomethyldibromo-diphenylmethane (99688-47-8)		
	Monomethyldichloro-diphenylmethane (81161-70-8)		
	Nitrites*		
	Polybrominated biphenyls (PBB, 59536-65-1)		
	Pentabromodiphenyl ether (PeBDE, 32534-81-9)		
	Octabromodiphenyl ether (OBDE, 32536-52-0)		
	Polychlorinated biphenyls (PCB, 1336-36-3)		
	Polychlorinated terphenyls (PCT, 61788-33-8)		
	Tri-(2,3-dibromo-propyl)-phosphate (TRIS, 126-72-7)		
	Trimethylphosphate (512-56-1)		
	Tris-(aziridinyl)-phosphinoxide (TEPA, 5455-55-1)		
	Tris(2-chloroethyl)-phosphate (TCEP, 115-96-8)		
	Dimethyl methylphosphonate (DMMP, 756-79-6)		
Signature of person bear	ring legal responsibility:		
Company Name in CAPI	TALS		
Date:			
Company Stamp:			

Version 1.0 Page 82 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 2.2 – PUR foam: SVOCs, VOCs, VVOCs (PUR foam manufacturer)

NB. This declaration only needs to be made if PUR foam contributes to more than 5% of the total weight of the mattress.

I, the undersigned, hereby declare that the PUR foam does/does not (please delete as appropriate) contain the following substances.

Where these substances are used, the room concentrations after a period of 72 hours are as follows:

Restricted Substance	Assessment and verification procedure	Limit value (mg/m³)	Room concentrations after a period of 72 hours (mg/m³)	Test method/standard employed (Test report to be attached)
Formaldehyde (50-00-0)		0.005		
Toluene (108-88-3)		0.1		
Styrene (100-42-5)	Test chamber	0.005		
Each detectable compound classified as categories C1A or C1B according to the Regulation (EC) No 1272/2008 of the European Parliament and of the Council Sum of all detectable compound classified as categories C1A	method in accordance with ISO 16000 series or equivalent CEN/TS 16516 standard as specified in the criteria document.	0.005		
Aromatic hydrocarbons	-	0.5		
VOCs (total) 0.5 Signature of person bearing legal responsibility:				
Company Name in CAPITALS:				
Date:				
Company Stamp:				_

Version 1.0 Page 83 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 2.3 – PUR foam: Dyes (PUR foam manufacturer)

NB. This declaration only needs to be made if PUR foam contributes to more than 5% of the total weight of the mattress.

I, the undersigned, hereby declare that the PUR foam does/does not (please delete as appropriate) contain dyes. Where dyes are used, I have completed the declaration(s) against Criterion 5.5.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 84 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 2.4 - PUR foam: Isocyanate (PUR foam manufacturer)

Version 1.0 Page 85 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 2.5 – PUR foam: Blowing agents (PUR foam manufacturer)

NB. This declaration only needs to be made if PUR foam contributes to more than 5% of the total weight of the mattress.

I, the undersigned, hereby declare that halogenated organic compounds are not used as blowing agents or as auxiliary blowing agents.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 86 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 3.1 – Wire and springs: Degreasing declaration.

(Wire/Spring manufacturer)

NB. The following declaration is only required if wire and/or springs contribute to more than 5% of the total weight of the mattress.

I, the undersigned, hereby declare that where degreasing and/or cleaning of wire and/or springs is carried out with organic solvents, a closed cleaning/degreasing system is used.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 87 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 3.2 – Wire and springs: Galvanisation (Wire/Spring manufacturer)

NB. The following declaration is only required if wire and/or springs (delete as appropriate) contribute to more than 5% of the total weight of the mattress.

I, the undersigned, hereby declare that the surface of the wire and/or springs (delete as appropriate) is not covered by a galvanic metal layer.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 88 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 4 – Coconut fibres (rubberised) (Applicant)

NB. The following declaration is only required if coconut fibre contributes to more than 5% of the total weight of the mattress.

I, the undersigned, hereby declare that rubberised coconut fibres are used/are not used (please delete as appropriate).

(NB. Where the coconut fibres are rubberised using latex foam, criterion 1 must be complied with. All relevant declarations and test reports must be completed (as set out in Criterion 1)

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 89 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 5.1 – Textiles General requirements on hazardous substances (Applicant or Textile supplier/manufacturer)

NB. To be completed for all textile materials used in the mattress cover and/or filling materials.

I, the undersigned, hereby declare that all the textile materials used fulfil the requirements of criterion 7 (flame retardants), criterion 8 (biocides), criterion 9 (plasticizers) and criterion 10 (hazardous substances) of the EU Ecolabel criteria for bed mattresses and I attach all the relevant declarations and supporting documentation required by those criteria.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 90 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration (a): Criterion 5.2 A&V type A – Auxiliaries used in preparations and formulations for mattress covers (any fibre) (Applicant or Textile supplier/manufacturer)

- A) I, the undersigned, hereby declare that Alkylphenols are/are not used (delete as appropriate) and I hereby declare that Alkylphenolethoxylates (APEOs) and their derivatives are/are not used (delete as appropriate).
- B) Where Alkylphenols and/or Alkylphenolethoxylates (APEOs) and their derivatives are used in any preparations or formulations used for the production of woollen filling materials the amounts present in the filling materials are as follows:

Restricted substance	Limit value (mg/kg)	Test results (mg/kg)	Information to be attached
Alkylphenols: Nonylphenol, mixed isomers (25154-52-3) 4-Nonylphenol (104-40-5) 4-Nonylphenol, branched (84852-15-3) Octylphenol (27193-28-8) 4-Octylphenol (1806-26-4) 4-tert-Octylphenol (140-66-9) Alkylphenolethoxylates (APEOs) and their derivatives: Polyoxyethylated octyl phenol (9002-93-1) Polyoxyethylated nonyl phenol (9016-45-9) Polyoxyethylated p-nonyl phenol (26027-38-3	. 25 (sum)		Report presenting results of testing of the final product using solvent extraction followed by liquid chromatography - mass spectrometry (LC-MS).
Signature of person bearing legal responsibility	y:		
Company Name in CAPITALS:			
Date:			
Company Stamp:			
Company Stamp:			

Version 1.0 Page 91 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration (b): Criterion 5.2 A&V type B – Auxiliaries used in preparations and formulations for mattress covers (any fibre) (Textile manufacturer/supplier)

I, the undersigned, hereby declare that none of the following substances are used in any preparations or formulations used for the production of all mattress covers, and append safety data sheets (SDS) for all production stages to support this.

- Bis (hydrogenated tallow alkyl) dimethyl ammonium chlorida (DTDMAC)
- distearyl dimethyl ammonium chloride
 (DSDMAC)
- di(hardened tallow) dimethyl ammonium chloride
- ✓ (□□T□V4Λ
- ethylene diamine tetra acetate (EDTA)
- diethylene triamine penta acetate (DTPA)
- 4-(1,1,3,3-

tatramathulhutullaha

- 1-Methyl-2pyrrolidone
- Nitrilotriacetic acid
 (NTA)

	/NITA)
Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 92 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration (c): Criterion 5.2 A&V type A – Auxiliaries used in preparations and formulations for filling materials made of wool (Applicant)

I, the undersigned, hereby declare that Alkylphenols and Alkylphenolethoxylates (APEOs) and their derivatives are/are not used (delete as appropriate). Where they are used in any preparations or formulations for the production of woollen filling materials the amounts present in the filling materials are as follows:

Restricted substance	Limit values (mg/kg)	Test results (mg/kg)	Information to be attached
Alkylphenols: Nonylphenol, mixed isomers (25154-52-3) 4-Nonylphenol (104-40-5) 4-Nonylphenol, branched (84852-15-3) Octylphenol (27193-28-8) 4-Octylphenol (1806-26-4) 4-tert-Octylphenol (140-66-9) Alkylphenolethoxylates (APEOs) and their derivatives: Polyoxyethylated octyl phenol (9002-93-1) Polyoxyethylated nonyl phenol (9016-45-9) Polyoxyethylated p-nonyl phenol (26027-38-3)	- 25 (sum)		Report presenting results of testing of the final product using solvent extraction followed by liquid chromatography - mass spectrometry (LC-MS).
Signature of person bearing legal responsibility:			
Company Name in CAPITALS:			
Date:			
Company Stamp:			

Version 1.0 Page 93 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 5.3 – Surfactants, fabric softeners and complexing agents in wet processes (Fibre supplier/manufacturer)

NB. To be completed for all textile materials used in the mattress cover, made of any fibre.

I, the undersigned, hereby declare that all the surfactants, fabric softeners and complexing agents used in wet processes associated with the fibres are either:

- a) Readily biodegradable under aerobic conditions or
- b) Inherently biodegradable or eliminable in waste-water treatment plants

And I attach the safety data sheets (SDS) and appropriate OECD/ISO test report to confirm this, according to the following:

Readily biodegradability: OECD 301 A, ISO 7827, OECD 301 B, ISO 9439, OECD 301 C,

OECD 301 D, ISO 10708, OECD 301 E, OECD 301 F, ISO 9408

Readily biodegradability: OECD 301 A, ISO 7827, OECD 301 B, ISO 9439, OECD 301 C,

OECD 301 D, ISO 10708, OECD 301 E, OECD 301 F, ISO 9408

Inherently biodegradability: ISO 14593, OECD 302 A, ISO 9887, OECD 302 B, ISO 9888,

OECD 302 C

Eliminability: OECD 303A/B, ISO 11733

I also declare that non-ionic and cationic surfactants <u>are/are not</u> used (delete as appropriate).

Where used, I declare that they are readily biodegradeable under anaerobic conditions and I attach an appropriate ISO/OECD test report (ISO 11734, ECETOC No 28 (June 1988), OECD 311) to confirm this.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 94 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration (a): Criterion 5.4 – Bleaching of pulp, yarns, fabrics and end products – non man-made cellulose fibres (Fibre supplier/manufacturer)

(Tible 30ppilel/illalibractorel)	
I, the undersigned, hereby declare that that <u>no</u> chlo production of the yarns, fabrics or end-products.	orinated bleaching agents have been used in the
Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 95 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration (b): Criterion 5.4 – Bleaching of pulp, yarns, fabrics and end products – man-made cellulose fibres (Fibre supplier/manufacturer)

I, the undersigned, hereby declare that the pulp has <u>not</u> been bleached with elemental chlorine and the total amount of chlorine and organically bound chlorine in the finished fibres (OX) does not exceed 150 ppm or 0.170 kg/ADt pulp in the wastewater from the pulp manufacturing plant (AOX) and I attach a test report using the appropriate ISO method (OX: ISO 11490 (controlled combustion and microcoulometry) ;AOX: ISO 9562) that shows compliance with these limits.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 96 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration (a): Criterion 5.5 – Dyes (Fibre supplier/manufacturer)

NB. To be completed for all textile materials used in the mattress cover, made of any fibre.

I, the undersigned, hereby declare that the fibre material supplied conforms with the EU Ecolabel criteria for dyes in textiles (criterion 5.5). Specifically I confirm that the dyes listed in criteria 5.5 under the following categories are <u>not</u> used:

- (i) Halogenated carriers
- (ii) CMR dyes
- (iii) Potentially sensitising dyes
- (iv) Chrome mordant dyes
- (v) Metal complex dyes

This is confirmed by the accompanying safety data sheets

(for Azo dyes, complete Declaration (b): Criterion 5.5 overleaf)

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 97 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration (b): Criterion 5.5 – Azo dyes (Fibre supplier/manufacturer) NB. To be completed for all textile materials used in the mattress cover, made of any fibre. I, the undersigned, hereby declare that the content of each arylamine in the final product is less than 30 mg/kg and I attach a test report (according to EN 14362-1 and EN 14362-3) that confirms this. Signature of person bearing legal responsibility: Company Name in CAPITALS: Date: Company Stamp:

Version 1.0 Page 98 of 131



Declaration: Criterion 5.6 – Extractable metals (Applicant)

NB. To be completed for all textile materials used in the mattress cover, made of any fibre.

I, the undersigned, hereby declare the following amounts of extractable metals in the final product.

	Limit values (mg/kg)		Test results(mg/kg)		Information
	Covers for Cot mattresses	All other products	Covers for Cot mattresses	All other products	to be provided
Antimony (Sb)	30.0	30.0			Analysis
Arsenic (As)	0.2	1.0			according to ISO 105-E04
Cadmium (Cd)	0.1	0.1			(acid sweat
Chromium (Cr) - Textiles dyed with metal complex dyes	1.0	2.0			solution) and detection with inductively coupled
- All other textiles	1.0	1.0			plasma mass
Cobalt (Co) - Textiles dyed with metal	1.0	4.0			spectrometry (ICP-MS) or
complex dyes - All other textiles	1.0	1.0			inductively coupled plasma optical emission spectrometry (ICP-OES, also referred to as ICP-AES).
Copper (Cu)	25.0	50.0			
Lead (Pb)	0.2	1.0			
Nickel (Ni) - Textiles dyed with metal complex dyes	1.0	1.0			
- All other textiles	0.5	1.0			All test reports should be
Mercury (Hg)	0.02	0.02			should be attached.
Signature of person bearing (legal responsi	bility:			-
Company Name in CAPITALS	:				
Date:					
Company Stamp:					

Version 1.0 Page 99 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 5.7 – Water, stain and oil repellents (Fibre manufacturer/supplier)

(Fibre manufacturer/supplier)		
NB. To be completed for all textile materials used in the mattress cover, made of any fibre.		
I, the undersigned, hereby declare that:		
1. no fluorinated water, stain and oil repellent treatments (including perfluorinated and polyfluorinated carbon treatments) are used.		
2. non-flourinated treatments are readily biodegradable and non-bioaccumulative in the aquatic environment including aquatic sediment. They additionally comply with criterion 10.		
I attach relevant safety data sheets (SDS) as appropriate.		

Version 1.0 Page 100 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 5.8 – Wastewater discharges from wet processing

(Textile manufacturer)

NB. To be completed for all textile materials used in the mattress cover, made of any fibre and all filling materials made of wool.

I, the undersigned, hereby declare that the wastewater discharges from wet processing (weaving, dyeing, printing and finishing) do not exceed 20 g COD / kg textile processing.

I also declare that the wastewater is treated on-site/off-site (delete as appropriate)

Where the wastewater is treated on-site and is discharged directly to surface waters and the receiving water has a pH value between 6 and 9 and a temperature below 35 $^{\circ}$ C, I declare that the wastewater has:

Where wastewater is treated off-site, I attach the appropriate information from the wastewater treatment plant operator.

I also declare compliance with the following spectral coefficients, if colour removal is required by a derogation condition in criterion 10:

- (i) 7 m⁻¹ at 436 nm (yellow sector)
- (ii) 5 m^{-1} at 525 nm (red sector)
- (iii) 3 m^{-1} at 620 nm (blue sector).

Parameter	Results of monthly averages in the 6 months (m) preceding the application				Information to be attached		
	m1	m2	m3	m4	m5	т6	
g COD / kg textile							Documentation and test reports, using ISO 6060 for determination of COD
рН							Documentation and test reports.
Temperature (¶C)							Documentation and test reports
spectral coefficient yellow sector(*)							Documentation and test reports, using ISO 7887
spectral coefficient red sector(*)							Documentation and test reports, using ISO 7887
spectral coefficient blue							Documentation and test

Version 1.0 Page 101 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Version 1.0 Page 102 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 5.9 – Mechanical resistance (Applicant or Textile supplier/ manufacturer)

NB. To be completed for all textile materials used in the mattress cover, made of any fibre.

I, the undersigned, hereby declare that the mattress cover meets the following mechanical properties and the test results are shown below:

Requirement	Assessment and Verification procedure	Test Result (test reports to be attached)
Tear Strength Required mechanical properties :Woven fabrics ≥ 15 N, Nonwoven fabrics ≥ 20 N, (Knitted fabrics: not applicable)	ISO 13937-2 (woven fabrics), ISO 9073-4 (nonwoven)	
Seam Slippage Required mechanical properties: Woven fabrics ≥ 16 picks: maximum 6mm Woven fabrics < 16 picks: maximum 10 mm (Knitted fabrics and nonwovens: not applicable)	ISO 13936-2 (under a load of 60 N for all woven fabrics)	
Tensile Strength Required mechanical properties: Woven fabrics ≥ 350 N (Knitted fabrics and nonwovens: not applicable)	ISO 13934-1	
Signature of person bearing legal responsibility:		
Company Name in CAPITALS:		
Date:		
Company Stamp:		

Version 1.0 Page 103 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 5.10 - Durability of flame retardant function

(Applicant or Textile supplier/manufacturer)

NB. To be completed for all textile materials used in the mattress cover, made of any fibre.

I, the undersigned, hereby declare that the mattress cover maintains its flame retardant function after washing according to the appropriate BS and ISO standards set out below.

Requirement	Assessment and Verification procedure	Test Result (test reports to be attached)
Removable Covers Removable and washable covers shall retain their functionality after 50 wash and tumble dry cycles at a minimum of 75°C.	Domestic wash cycles: ISO 6330 in combination with ISO12138 Industrial wash cycles: ISO10528	Method and test results:
Non-Removable Covers Covers that are not intended to be removed and washed shall retain their functionality after a soak test.	BS 5641 or equivalent	Method and test results:
Signature of person bearing legal responsibility:		
Company Name in CAPITALS:		
Date:		
Company Stamp:		

Version 1.0 Page 104 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 5.11 – Dimensional change (Applicant or Textile supplier/manufacturer)

NB. To be completed for all removable and washable mattress covers, made of any fibre.

I, the undersigned, hereby declare that the mattress cover meets the following requirements and I attach test reports carried out according to the appropriate EN and ISO standards.

Requirement	Assessment and Verification procedure	Test Result (reports to be attached)
Dimensional changes after washing and drying at either domestic or industrial washing temperatures and conditions shall not exceed: Woven fabrics: +/- 3% Nonwoven fabrics: +/- 5%	ISO 6330 in combination with EN 5077, according to specified testing methodology.	
Signature of person bearing legal responsibility:		
Company Name in CAPITALS:		
Date:		
Company Stamp:		

Version 1.0 Page 105 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 6 – Glues and adhesives (Applicant or glue/adhesive supplier/manufacturer)

I, the undersigned, hereby declare that glues containing organic solvents are not use.

I also declare that any glues/adhesives that are used for assembling the product are compliant with Criterion 10.

I attach the safety data sheets (SDS) for all the glues and adhesives used.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 106 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 7 – Flame retardants (Applicant or parts supplier/manufacturer)

I, the undersigned, hereby declare that none of the following flame retardants are added intentionally to the product or any component of it. Decabromodiphenlyether. Short chain chlorinated paraffins (C10-C13). Hexabromocyclododecane. Tris-(2,3-dibromopropyl)-phosphate. Octabromodiphenylether. Tris(2-chloroethyl)phosphate. Pentabromodiphenylether. Tris-(aziridinyl)-phosphinoxide. Polybrominated biphenyls. All other substances added to the product at any stage to enhance the flame retarding properties are listed in the attachment, with details of concentrations, related H statements and R phrases and accompanying safety data sheets (SDS). Signature of person bearing legal responsibility: **Company Name in CAPITALS:** Date: **Company Stamp:**

Version 1.0 Page 107 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 8.1 – Biocides (Production) (Applicant or parts supplier/manufacturer)

I, the undersigned, hereby declare that biocidal active substances are/are not present in the product (delete as appropriate).

Where biocidal active substances are used, I declare they are authorised under Regulation No. EC 528/2012. I have attached a list with details of concentrations, related H statements (or R phrases) and safety data sheets (SDS).

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 108 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 8.2 – Biocides (Transport) (Applicant or parts supplier/manufacturer)

I, the undersigned, hereby declare that no Chlorophenols (their salts and esters), polychlorinated biphenyl (PCB), organo-tin compounds (including TBT, TPhT, DBT and DOT) and diemthyl fumarate (DMFu) are used during the transportation or storage of the product, any article or homogeneous part of it.

Where biocidal active substances are used during transportation or storage, I declare they are authorised under Regulation No. EC 528/2012. I also attach a list with details of concentrations, related H statements (or R phrases) and safety data sheets (SDS).

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 109 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 9 – Plasticizers (Applicant or parts supplier/manufacturer)

I, the undersigned, hereby declare that none of the following plasticizers have been added to the product or any article or homogenous part of it.

All list of plasticizers added to the product are listed in the attachment, with details of concentrations, related H statements and R phrases and accompanying safety data sheets (SDS).

Di-iso-nonylphtalate*	28553-12-0; 68515-48-0	DINP
Di-n-octylphthalate	117-84-0	DNOP
Di(2-ethylhexyl)-phthalate	117-81-7	DEHP
Diisodecylphthalate*	26761-40-0; 68515-49-1	DIDP
Butylbenzylphthalate	85-68-7	BBP
Dibutuylphthalate	84-74-2	DBP
Di-iso-butylphthalate	71888-89-6	DIBP
Di-C6-8-branched alkyphthalates	68515-42-4	DIHP
Di-C7-11-branched alkylphthalates	84-75-3	DHNUP
Di-n-hexylphthalate	117-82-8	DHP
Di-(2-methoxyethyl)-phthalate	71888-89-6	DMEP
*only for cot mattresses		
Signature of person bearing legal responsibility:		
Company Name (of the bed mattress producers) in CAPITALS:		
Date:		
Company Stamp:		

Version 1.0 Page 110 of 131

EU Jabel Ecolabel www.ecolabel.eu

EU ECOLABEL BED MATTRESSES USER MANUAL

Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 10 (a) – Hazardous substances and mixtures

(Applicant or parts supplier/manufacturer)

I, the undersigned, hereby declare that the product is compliant with criterion 10(a) of the EU Ecolabel criteria for bed mattresses, and have attached the required supporting information:

- A bill of materials
- A list of all articles and homogenous parts of the product
- Safety data sheets for the final product and each article, homogenous part, mixture and substance comprising more than 0.10% w/w of the final product.
- Safety data sheets for mixtures and substances used in the assembly of the final product or applied to textile components during production, dyeing, printing and finishing and that remain in the final product. Where safety data sheets are not available for a substance or mixture or it is self-classified then information relevant to the hazard classification and meeting the requirements of Annex II of Regulation (EC) No. 1907/2006 is attached.
- Chemical recipes used to impart a specific function (e.g. glues, adhesives, flame retardants, biocides, plasticizers, dyes etc.)
- A list of derogated substances present in the product with supporting evidence showing how the derogation conditions are met.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 111 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 10 b – Substances listed in accordance with Article 59(1) of Regulation (EC) No 1907/2006 (Applicant)

I, the undersigned, hereby declare that the product, any article and homogenous part of it and any mixture used in it, does not contain any substance(s) of very high concern (SVHCs) listed in accordance with Article 59(1) of Regulation (EC) No. 1907/2006 in concentrations greater than 0.10% by weight.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 112 of 131



Declaration: Criterion 11: Emission of specified volatile organic compounds (SVOCs, VOCs, VVOCs) from the mattress (Applicant)

I, the undersigned, hereby declare that the contribution of the mattress(es) to the VOC content of the indoor air, for a period of 7 days (or 28 days) using the emission test chamber method with reference to the European reference room, is as follows:

Requirement	Assessment and Verification procedure	Test result (report to be attached)
Formaldehyde Final value 7th day: < 0.06 mg/m3 OR Final value 28th day: < 0.06 mg/m3	EN ISO 1600-3 (formaldehyde)	
Other aldehydes Final value 7th day: < 0.06 mg/m3 OR Final value 28th day: < 0.06 mg/m3	EN ISO 1600-3 (other aldehydes)	
VOCs (total) Final value 7th day: < 0.5 mg/m3 OR Final value 28th day: < 0.2 mg/m3	EN ISO 1600-6	
SVOCS(total Final value 7th day: < 0.1 mg/m3 OR Final value 28th day: < 0.04 mg/m3	EN ISO 1600-6	
Each detectable compound classified as categories C1A or C1B according to the Regulation (EC) No 1272/2008 Final value 7th day: OR Final value 28th day	EN ISO 16000-9	
Signature of person bearing legal responsibility:		
Company Name in CAPITALS:		
Date:		
Company Stamp:		

Version 1.0 Page 113 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 12.1: Technical performance - Quality (Applicant)

(Applicant)			
I, the undersigned, attach a report describing our approach to ensuring the product meets the technical and functional specifications set for it, including its thermo-hygrometric wellness requirements. This report includes details of the research and development (R&D) process, materials selection and internal testing and verification procedures.			
Signature of person bearing legal responsibility:			
Company Name in CAPITALS:			
Date:			
Company Stamp:			

Version 1.0 Page 114 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 12.2: Technical performance - Durability (Applicant)

I, the undersigned, hereby declare that mattress meets the following functional characteristics:

Requirement	Assessment and Verification procedure	Test result (reports to be attached)
Loss of height <15%		
Loss of firmness <20%	EN 1957 – Difference between measurements made at 100 cycles and 30,000 cycles of the test	
Signature of person bearing legal responsibility:		
Company Name in CAPITALS:		
Date:		
Company Stamp:		

Version 1.0 Page 115 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 12.3: Technical performance - Warranty (Applicant)

I, the undersigned, declare that the warranty period for this product(s) is 10 years (with the exception of cot mattresses) and I attach the warranty documentation, which contains recommendations on how to use, maintain and dispose of the mattress.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 116 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 13: Design for disassembly and recovery of materials (Applicant)

I, the undersigned, hereby declare that the mattress can be dismantled for the following purposes:

- undertaking repairs and replacements of worn-out parts,
- upgrading older or obsolete parts,
- separating parts and materials for potential recycling.

And I attach a report describing how the dismantling can be done and how each part can be disposed of.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 117 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 14: Information appearing on the EU Ecolabel (Applicant)

I, the undersigned, declare that the following information appears on the packaging and/or product:

- A. If Box 2 of the EU Ecolabel is being used (this is optional):
 - 'High-quality long-lasting product'
 - 'Hazardous substances restricted'
 - 'Indoor air pollution reduced'
- B. 'For more information on why this product has been awarded the EU Ecolabel, please visit http://ec.europa.eu/environment/ecolabel/

I also attach a sample of the label.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 118 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Declaration: Criterion 15: Additional Information to consumers (Applicant)

I, the undersigned, declare that consumers of this product are provided with documentation, which contains recommendations on how to use, maintain and dispose of the mattress.

I attach the documentation.

Signature of person bearing legal responsibility:	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Version 1.0 Page 119 of 131



Appendix 1: List of main standards referred to in this User Manual

No.	Criterion/Title	Standard
	Preamble	
	Eliminable Substance - degradation of dissolved organic carbon	OECD 303 A - Activated Sludge Units : 2001
	Eliminable Substance - degradation of dissolved organic carbon	OECD 303 B – Biofilms : 2001
	Eliminable Substance - degradation of dissolved organic carbon	ISO 11733:2004
	Inherently Biodegradable Substance	ISO 14593:1999
	Inherently Biodegradable Substance	OECD 302 A (1992)
	Inherently Biodegradable Substance	ISO 9887:1992
	Inherently Biodegradable Substance	OECD 302 B (1992)
	Inherently Biodegradable Substance	ISO 9888:1999
	Inherently Biodegradable Substance	OECD 302 C (1992)
	Readily Biodegradable	OECD 301 A (1992)
	Readily Biodegradable	ISO 7827:2010
	Readily Biodegradable	OECD 301 B (1992)
	Readily Biodegradable	ISO 9439:1999
	Readily Biodegradable	OECD 301 C (1992)
	Readily Biodegradable	OECD 301 D (1992)
	Readily Biodegradable	ISO 10708:1997
	Readily Biodegradable	OECD 301 E (1992)
	Readily Biodegradable	OECD 301 F (1992)
	Readily Biodegradable	ISO 9408:1999
1	Latex Foam	
1.1	Restricted Substances	
	(B) Heavy metal leaching test	DIN 38414-S4: 1984
1.2	Emission of Specified Volatile Organic Compounds	
	VOC emissions measurement - Test chamber method	ISO 16000-9:2006
	Analysis of formaldehyde and other aldehydes	ISO 16000-3:2011
	Analysis of other VOCs	ISO 16000-6:2011
	VOC emissions + analysis	CEN/TS 16516:2013
	Analysis of nitrosamine GC-TEA analysis	BGI 505-23 (1992)
2	Polyurethane (PUR) foam	

Version 1.0 Page 120 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

2.1	Restricted Substances	
	(B) Heavy metal leaching test	DIN 38414-S4: 1984
2.2	Emission of Specified Volatile Organic Compounds	
	VOC emissions measurement – Sampling and storage	ISO 16000-11:2006
	VOC emissions measurement - Test chamber method	ISO 16000-9:2006
	Analysis of formaldehyde and other aldehydes	ISO 16000-3:2011
	Analysis of other VOCs	ISO 16000-6:2011
	VOC emissions + analysis	CEN/TS 16516:2013
2.4	Total Chlorine Content of Isocyanates	
	Chlorine in isocyanates used PUR foam production	ASTM D4661-93
5	General Requirements on Hazardous Substances	
5.3	Surfactants, Fabric Softeners and Complexing Agents in Wet Processes	
	Readily Biodegradable	OECD 301 A (1992)
	Readily Biodegradable	ISO 7827:2010
	Readily Biodegradable	OECD 301 B (1992)
	Readily Biodegradable	ISO 9439:1999
	Readily Biodegradable	OECD 301 C (1992)
	Readily Biodegradable	OECD 301 D (1992)
	Readily Biodegradable	ISO 10708:1997
	Readily Biodegradable	OECD 301 E (1992)
	Readily Biodegradable	OECD 301 F (1992)
	Readily Biodegradable	ISO 9408:1999
	Inherently Biodegradable Substance	ISO 14593:1999
	Inherently Biodegradable Substance	OECD 302 A (1992)
	Inherently Biodegradable Substance	ISO 9887:1992
	Inherently Biodegradable Substance	OECD 302 B (1992)
	Inherently Biodegradable Substance	ISO 9888:1999
	Inherently Biodegradable Substance	OECD 302 C (1992)
	Eliminable Substance - degradation of dissolved organic carbon	OECD 303 A - Activated Sludge Units :2001
	Eliminable Substance - degradation of dissolved organic carbon	OECD 303 B - Biofilms :2001
	Eliminable Substance - degradation of dissolved organic carbon	ISO 11733:2004
	Non-ionic and cationic surfactants	ISO 11734:1995
	Non-ionic and cationic surfactants	ECETOC TR 028
	Non-ionic and cationic surfactants	OECD 311 (2006)

Version 1.0 Page 121 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

5.4	Bleaching of Pulp, Yarns, Fabrics and End Products	
	Chlorine in finished fibres	ISO 11480:1997
	Chlorine in the wastewater from pulp manufacturing	ISO 9562:2004
5.5	Dyes	
	Azo-dye content	EN 14362-1:2012
	Azo-dye content	EN 14362-3:2012
5.6	Extractable Metals	
	Assessment of extractable metal concentration	ISO 105-E04:2003
5.8	Wastewater Discharges from Wet Processing	
	Determination of COD	ISO 6060:1989
	Determination of colour	ISO 7887:2011
5.9	Mechanical Resistance	
	Tear strength	ISO 13937-2:2000
	Tear strength	ISO 9073-4:1997
	Seam slippage	ISO 13936-2:2004
	Tensile strength	ISO 13934-1:2013
5.10	Durability of Flame Retardant Function	
	Washing and drying procedure for textiles	ISO 6330:2012
	Standard domestic wash cycle prior to flammability testing	ISO 12138:1996
	Standard industrial wash cycle prior to flammability testing	ISO 10528:1995
	Washing of non-removable cover	BS 5651:1978
5.11	Dimensional Change	
	Washing and drying procedure for textiles	ISO 6330:2012
	Determination of dimensional change in washing and drying	ISO 5077:2008
9	Plasticizers	
	Phthalate content	ISO 14389:2014
11	Emissions of Specified VOCs from the Mattress	
	VOC emissions measurement - Test chamber method	ISO 16000-9:2006
	Analysis of formaldehyde and other aldehydes	ISO 16000-3:2011
	Analysis of other VOCs	ISO 16000-6:2011
	VOC emissions + analysis	CEN/TS 16516:2013

Version 1.0 Page 122 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

12	Technical Performance	
	Mattress durability	BS EN 1957:2012

Version 1.0 Page 123 of 131



Part E: Checklist

Applicant 3 checkist				
This checklist summarises the documentation to be provided for each criterion. This checklist must be completed by the applicant.				
	Mark wh	en done		
Documents to be submitted to the Competent Body:	Included	Does not apply		
Part C: Application form				
Criterion 1: Latex foam				
1.1 Restricted substances				
Documents to be submitted to the Competent Body:	Included	Does not apply		
Declaration re: latex foam (restricted substances) (criterion 1.1)				
Test reports.				
1.2 Emission of specified volatile organic compounds (SVOCs, VOCs,	VVOCs)			
Documents to be submitted to the Competent Body:	Included	Does not apply		
Declaration re: latex foam (SVOCs, VOCs, VVOCs) (criterion 1.2)				
Test reports.				
1.3 Dyes				
Documents to be submitted to the Competent Body:	Included	Does not apply		
Declaration re: latex foam (dyes) (criterion 1.3)				
Criterion 2: Polyurethane (PUR) foam				
2.1 Restricted substances				
Documents to be submitted to the Competent Body:	Included	Does not apply		
Declaration re: PUR foam (restricted substances) (criterion 2.1a)				
Decidration re. For Today (restricted substances) (enterior 2.14)				

Version 1.0 Page 124 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

added (criterion 2.1b)		
Test reports.		
2.2 Emissions of specified volatile organic compounds (SVOCs, VOC	s, VVOCs)	
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: PUR foam (SVOCs, VOCs, VVOCs) (criterion 2.2)		
Test reports.		
2.3 Dyes		
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: PUR foam: dyes (criterion 2.3)		
2.4 Total chlorine content of isocyanates		
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: PUR foam: isocyanates (criterion 2.4)		
Test report.		
2.5 Blowing agents		
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: PUR foam: blowing agents (criterion 2.5)		
Criterion 3: Wire and springs		
3.1 Degreasing	ı	
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: wire and springs (degreasing) (criterion 3.1)		
3.2 Galvanisation		
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: wire and springs (galvanisation) (criterion 3.2)		

Version 1.0 Page 125 of 131



EU ECOLABEL BED MATTRESSES USER MANUAL Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Criterion 4: Coconut fibres				
Docum	ents to be submitted to the Competent Body:	Included	Does not apply	
	Declaration re: coconut fibres (rubberised) (criterion 4)			
	Supporting documentation as required			
Criterio	on 5: Textiles (fabrics and fibres used as mattress cover and/or filling	materials)		
	5.1 General requirements on hazardous substances (including flame and plasticizers (Applicability: all textiles)	retardants	, biocides	
Docum	ents to be submitted to the Competent Body:		Does not	
Docum	ents to be submitted to the competent body.	Included	apply	
	Declaration re: textiles (general requirements on hazardous			
_	substances) (criterion 5.1a)			
	Supporting documentation as required.			
	5.2 Auxiliaries used in preparations and formulations (Applicability:	covers ma	de of any	
	fibres and filling materials made of wool)			
Docum	ents to be submitted to the Competent Body:	Included	Does not apply	
	Declaration re: Textiles (auxiliaries used in preparations and			
	formulations for mattress covers) (criterion 5.2a)			
	Declaration re: Textiles (auxiliaries used in preparations and			
	formulations for mattress covers) (criterion 5.2b)			
	Declaration re: Textiles (auxiliaries used in preparations and			
	formulations for filling materials made of wool) (criterion 5.2)			
	Supporting documentation including safety data sheets (SDS).			
	Test reports.			
	5.3 Surfactants, fabric softeners and complexing agents in wet proc	ess (Applic	ability:	
	covers made of any fibres)			
Docum	ents to be submitted to the Competent Body:	Included	Does not apply	
	Declaration re: Textiles (surfactants, fabric softeners and complexing			
1	· · · · · · · · · · · · · · · · · · ·			
	agents in wet processes) (criterion 5.3)			

Version 1.0 Page 126 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Test reports.			
5.4 Bleachine	g of pulp, yarns and end products (Applicability: covers	made of a	ny fibres)
•	bmitted to the Competent Body:	Included	Does not apply
	e: Textiles (bleaching of pulp, yarns, fabrics and end n man made fibres) (criterion 5.4a)		
ED	e: Textiles (bleaching of pulp, yarns, fabrics and end		
	an-made fibres) (criterion 5.4b)		
Test reports.			
5.5 Dyes (Ap	plicability: covers made of any fibres)		
Documents to be su	bmitted to the Competent Body:	Included	Does not apply
<u>Declaration re</u>	e: Textiles (dyes) (criterion 5.5a)		
<u>Declaration re</u>	e: Textiles (azo dyes) (criterion 5.5b)		
Test reports.			
Safety Data S	heets for relevant dyes.		
5.6 Extractal	ple metals (Applicability: covers made of any fibres)		
Documents to be su	bmitted to the Competent Body:	Included	Does not apply
Declaration re	e: Textiles (extractable metals) (criterion 5.6)		
Test reports.			
5.7 Water, st	ain and oil repellents (Applicability: covers made of any	fibres)	
Documents to be su	bmitted to the Competent Body:	Included	Does not apply
<u>Declaration re</u>	e: Textiles (water, stain and oil repellents) (criterion 5.7)		
Test reports.			
5.8 Wastewa	ter discharges from wet processing (Applicability: cover	rs made of	any
fibres and fil	lling materials made of wool)		
Documents to be su	bmitted to the Competent Body:	Included	Does not apply
Declaration re (criterion 5.8)	e: Textiles (wastewater discharges from wet processing)		

Version 1.0 Page 127 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

	Supporting documentation		
	Test reports		
	5.9 Mechanical resistance (Applicability: covers made of any fibres)		
Docum	ents to be submitted to the Competent Body:	Included	Does not apply
	<u>Declaration re: Textiles (mechanical resistance) (criterion 5.9)</u>		
AIIII	Test reports.		
	5.10 Durability of flame retardant function (Applicability: covers ma	de of any f	ibres)
Docum	ents to be submitted to the Competent Body:	Included	Does not apply
	Declaration re: Textiles (durability of flame retardant function - covers		
	made of any fibre) (criterion 5.10)		
	Test reports		
	restroports		
	5.11 Dimensional change (Applicability: removable covers made of a	any fibres)	
Docum	ents to be submitted to the Competent Body:	Included	Does not apply
	Declaration re: Textiles (dimensional change) (criterion 5.11)		
	Test reports.		
Criterion 6: Glues and adhesives			
Docum	ents to be submitted to the Competent Body:	Included	Does not apply
	Declaration re: glues and adhesives (criterion 6)		
	Safety data sheets (SDSs)		
Criterio	on 7: Flame retardants		
Docum	ents to be submitted to the Competent Body:	Included	Does not apply
	Declaration re: flame retardants (criterion 7)		
	Supporting documentation		

Version 1.0 Page 128 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

Safety data sheets (SDSs)		
Criterion 8: Biocides		
8.1 Production		
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: biocides (production) (criterion 8.1)		
Supporting documentation as required in the criterion.		
Safety data sheets (SDSs)		
8.2 Transportation		
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: biocides (production) (criterion 8.2)		
Criterion 9: Plasticizers		
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: plasticizers (criterion 9)		
Supporting documentation		
Safety data sheets (SDSs)		
Criterion 10: Excluded or limited substances and mixtures		
(a) Hazardous substances and mixtures		
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: hazardous substances and mixtures (criterion 10a)		
Supporting documentation (e.g. bill of materials, recipes etc.)		
Safety data sheets (SDSs)		
(b) Substances listed in accordance with Article 59(1) of Regulation	(EC) No 19	07/2006
Documents to be submitted to the Competent Body:	Included	Does not apply

Version 1.0 Page 129 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

	Declaration of substances listed in accordance with article 59(1) of		
	Regulation (EC) no 1907/2006 for mattress manufacturers (criterion		
	<u>10b)</u>		
Criteri mattre	on 11: Emission of specified volatile organic compounds (SVOCs, VOCess	C, VVOCs) f	rom the
Docun	nents to be submitted to the Competent Body:	Included	Does not apply
	<u>Declaration re: emission of specified volatile organic compounds</u> (SVOCs, VOCs, VVOCs) from the mattress (criterion 11)		
	Test reports		
Criteri	on 12: Technical performance		
	12.1 Quality		
Docun	nents to be submitted to the Competent Body:	Included	Does not apply
	Declaration re: technical performance (quality) (criterion 12.1)		
	Report		
	12.2 Durability		
Docun	nents to be submitted to the Competent Body:	Included	Does not apply
	Declaration re: technical performance (durability) (criterion 12.2)		
	Test report		
	12.3 Warranty		
Docun	nents to be submitted to the Competent Body:	Included	Does not apply
	Declaration re: technical performance (warranty) (criterion 12.3)		
	Supporting documentation		
Criteri	on 13: Design for disassembly and recovery of materials		<u>'</u>
Docum	nents to be submitted to the Competent Body:	Included	Does not apply

Version 1.0 Page 130 of 131



Commission Decision for the award of the EU Ecolabel for Bed Mattresses (2014/391/EU)

(criterion 13)		
Report		
Criterion 14: Information appearing on the EU Ecolabel		
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: information appearing on the EU Ecolabel (criterion 14)		
Sample label(s)		
Criterion 15: Additional information to consumers		
Documents to be submitted to the Competent Body:	Included	Does not apply
Declaration re: additional information for consumers (criterion 15)		
Supporting documentation		

Version 1.0 Page 131 of 131