

# DECISIONS

## COMMISSION DECISION

of 2 May 2014

**establishing the ecological criteria for the award of the EU Ecolabel for converted paper products**

*(notified under document C(2014) 2774)*

**(Text with EEA relevance)**

(2014/256/EU)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel <sup>(1)</sup>, and in particular Article 8(2) thereof,

After consulting the European Union Eco-labelling Board,

Whereas:

- (1) Under Regulation (EC) No 66/2010, the EU Ecolabel may be awarded to those products with a reduced environmental impact during their entire life cycle.
- (2) Regulation (EC) No 66/2010 provides that specific EU Ecolabel criteria are to be established according to product groups.
- (3) Since products having the best environmental performance should be produced with reduced discharges of toxic or eutrophic substances into waters, reduced environmental damage or risks related to the use of energy (global warming, acidification, ozone depletion, depletion of non-renewable resources), reduced environmental damage or risks related to the use of hazardous chemicals, it is appropriate to establish EU Ecolabel criteria for the product group 'converted paper'.
- (4) The revised criteria, as well as the related assessment and verification requirements should be valid for three years from the date of adoption of this Decision, taking into account the innovation cycle for this product group.
- (5) The measures provided for in this Decision are in accordance with the opinion of the Committee established by Article 16 of Regulation (EC) No 66/2010,

HAS ADOPTED THIS DECISION:

### *Article 1*

1. The product group 'converted paper products' shall comprise the following products:
  - (a) envelopes and paper carrier bags that consist of at least 90 % by weight of paper, paperboard or paper-based substrates;
  - (b) stationery paper products that consist of at least 70 % by weight of paper, paperboard or paper based substrates, except for suspension files and folders with metal fastener subcategories.

<sup>(1)</sup> OJ L 27, 30.1.2010, p. 1.

In the case referred to in point (b), the plastic component cannot exceed 10 % except for ring binders, exercise books, notebooks, diaries, and lever arch files where the plastic weight cannot exceed 13 %. Furthermore, the metal weight cannot exceed 30 g per product except for suspension files, folders with metal fasteners and ring binders where it can be up to 50 g and except for lever arch files, where it can up to 120 g.

2. The product group 'converted paper product' shall not include the following products:
  - (a) printed paper products included in the EU Ecolabel as established in Commission Decision 2012/481/EU <sup>(1)</sup>;
  - (b) packaging products (with the exception of paper carrier bags).

#### Article 2

For the purpose of this Decision, the following definitions shall apply:

- (1) 'Board substrate' means paperboard, cardboard or board, unprinted and not converted, with a basis weight higher than 400 g/m<sup>2</sup>;
- (2) 'Consumables' means chemical products used during the printing, coating and finishing processes and capable of being consumed, destroyed, dissipated, wasted or spent;
- (3) 'Converted paper product' is a paper, paperboard or paper based substrates, either printed or unprinted, generally used to protect, handle or store items and/or notes, for which the converting process is an essential part of the production process, comprising three main categories of products: envelopes, paper carrier bags and stationery paper products;
- (4) 'Stationery paper products' include folders, binders, notebooks, pads, notepads, exercise books, spiral-bound notebook, calendars with covers, diaries and loose-leaves;
- (5) 'Converting process' means a process whereby a material is processed into a converted paper product. This process can include a printing process (pre-press, press, and post-press operations);
- (6) 'Halogenated organic solvent' means an organic solvent which contains at least one atom of bromine, chlorine, fluorine or iodine per molecule;
- (7) 'Non-paper components' means all the parts of a converted paper product that do not consist of paper, paperboard or paper based substrates;
- (8) 'Packaging' means all products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer;
- (9) 'Paper carrier bags' are paper-based products used for the handling/transportation of goods;
- (10) 'Recycling' means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original purpose or other purposes, except for energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations;
- (11) 'Recycled fibres' means fibres diverted from the waste stream during a manufacturing process or generated by end-users of the product, which can no longer be used for their intended purpose. Excluded is reutilisation of materials generated in a process and capable of being reclaimed within the same process that generated it (mill broke — own produced or purchased);
- (12) 'Folders' mean folding cases or covers for loose papers, such as suspension files, indices and dividers, document wallet, 3-flap folders, and square cut folders;
- (13) 'Binders' are paper-based products consisting of a cover, usually made of board, with rings for holding loose papers together, such as ring binders and lever arch files;

<sup>(1)</sup> Commission Decision 2012/481/EU of 16 August 2012 establishing the ecological criteria for the award of the EU Ecolabel for printed paper (OJ L 223, 21.8.2012, p. 55).

- (14) 'Volatile Organic Compounds' (VOC) means any organic compound as well as the fraction of creosote, having at 293,15 K a vapour pressure of 0,01 kPa or more, or having a corresponding volatility under the particular conditions of use;
- (15) 'Washing agents' means: chemicals used to wash printing forms and printing presses to remove printing inks, paper dust and similar products; cleaners for finishing machines and printing machines; printing inks removers used in washing off dried printing inks;
- (16) 'Waste paper' means paper generated during the production of finished converted paper product and which does not form part thereof.

*Article 3*

In order to be awarded the EU Ecolabel under Regulation (EC) No 66/2010, an item of converted paper product shall fall within the product group 'Converted paper product' as defined in Article 1 of this Decision and shall comply with the criteria as well as the related assessment and verification requirements set out in the Annex.

*Article 4*

The criteria for the product group 'Converted paper product', as well as the related assessment and verification requirements, shall be valid for three years from the date of adoption of this Decision.

*Article 5*

For administrative purposes the code number assigned to 'Converted paper product' shall be '046'.

*Article 6*

This Decision is addressed to the Member States.

Done at Brussels, 2 May 2014.

*For the Commission*  
Janez POTOČNIK  
*Member of the Commission*

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## ANNEX

## FRAMEWORK

**The aims of the criteria**

The Ecolabel criteria reflect the best environmental performing products on the market of converted paper products. Whilst the use of chemical products and release of pollutants is part of the production process, a product that bears the EU Ecolabel guarantees the consumer that the use of such substances has been limited to the extent technically possible without prejudice to the fitness for use of the final product. The use of hazardous substances is excluded whenever possible. Derogations are granted only when there are no viable alternatives existing on the market and, such hazardous substances are only allowed at minimal concentrations.

## CRITERIA

Criteria for awarding the EU Ecolabel to converted paper products:

1. Substrate
2. Fibres: sustainable forest management
3. Excluded or limited substances and mixtures
4. Recyclability
5. Emissions
6. Waste
7. Energy
8. Training
9. Fitness for use
10. Information on the product
11. Information appearing on the EU Ecolabel

These criteria apply to all such processes undertaken at the site or sites or dedicated lines where the converting paper product is converted. If there are converting, printing, coatings and finishing processes exclusively used for ecolabelled products, criteria 2, 4, 5, 6 and 7 shall apply to those processes only.

The ecological criteria do not cover the transport of raw materials, consumables and final products.

Criterion 1 applies only to substrates used in the final converted paper product.

Criteria 4, 9, 10 and 11 apply to the final converted paper product.

Criterion 3 applies both to the non-paper components of the converted paper product and to the converting, printing, coating and finishing processes of the paper components.

Criteria 5, 6, 7 and 8 apply to the converting, printing, laminating and finishing processes of the paper components only.

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

All printing or converting on the converted paper product shall fulfil the criteria. Parts of the product that are printed or converted by a sub-contractor shall therefore also fulfil the related requirements. The application shall include a list of all the printing houses and subcontractors involved in the production of the converted paper, and their geographic locations.

The applicant shall provide a list of chemical products used in the printing house for the production of the converted paper products. This requirement applies to all consumables used during the converting, printing, coating and finishing processes. The list provided by the applicant shall include the amount, function and supplier of any chemical product used, together with the Safety Data Sheet, designed in accordance with the guidance in sections 10, 11 and 12 of Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council <sup>(1)</sup>.

Where the applicant is required to provide declarations, documentation, analyses, test reports, or other evidence to show compliance with the criteria, it is understood that those may originate from the applicant and/or his supplier(s) and/or their supplier(s), as appropriate.

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

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, competent bodies may require supporting documentation and may carry out independent verifications.

### Criterion 1 — Substrate

#### Part A — Paper Substrate

The substrate used shall be in conformity with the criteria 1, 2, 4 and 5 of the EU Ecolabel as established in Commission Decision 2011/333/EU <sup>(2)</sup> for Copying and graphic paper or in Commission Decision 2012/448/EU <sup>(3)</sup> for Newsprint paper and shall demonstrate the conformity to the criterion 2 — Fibres: sustainable forest management of the EU Ecolabel as established in this Commission Decision for converted paper products.

*Assessment and verification:* the applicant shall provide the specifications of the converted paper products concerned, including the trade names, amounts and weight/m<sup>2</sup> of the paper used. The list shall also include the names of the suppliers of the papers used. Conformity with the criteria 1, 2, 4 and 5 of the EU Ecolabel as established in Decision 2011/333/EU or Decision 2012/448/EU shall be proven for each substrate by providing a copy of a valid EU Ecolabel certificate for the paper used. Conformity with criterion 2 on fibres sustainable forest management shall be proven for each substrate by providing a PEFC, FSC or equivalent certificate valid for the substrate used, or through a self-declaration in case the applicant already has a valid EU Ecolabel certificate for the substrate used.

#### Part B — Board Substrate

### Criterion B1 — Emissions to water and to air

#### (a) COD, Sulphur, NO<sub>x</sub>, Phosphorous

For each of these parameters, the emissions to air and/or water from the pulp, the laminating papers and the board production shall be expressed in terms of points ( $P_{\text{COD}}$ ,  $P_{\text{S}}$ ,  $P_{\text{NO}_x}$ ,  $P_{\text{P}}$ ) as detailed below.

None of the individual points  $P_{\text{COD}}$ ,  $P_{\text{S}}$ ,  $P_{\text{NO}_x}$ ,  $P_{\text{P}}$  shall exceed 1,5.

The total number of points ( $P_{\text{total}} = P_{\text{COD}} + P_{\text{S}} + P_{\text{NO}_x} + P_{\text{P}}$ ) shall not exceed 4,0.

The calculation of P COD shall be made as follows (the calculations of  $P_{\text{S}}$ ,  $P_{\text{NO}_x}$ ,  $P_{\text{P}}$  shall be made in exactly the same manner).

<sup>(1)</sup> 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 (OJ L 396, 30.12.2006, p. 1).

<sup>(2)</sup> Commission Decision 2011/333/EU of 7 June 2011 on establishing the ecological criteria for the award of the EU Ecolabel for copying and graphic paper (OJ L 149, 8.6.2011, p. 12).

<sup>(3)</sup> Commission Decision 2012/448/EU of 12 July 2012 on establishing the ecological criteria for the award of the EU Ecolabel for newsprint paper (OJ L 202, 28.7.2012, p. 26).

For each pulp 'i', or each laminating paper, 'i' used, the related measured COD emissions ( $COD_{pulp, i}$  or  $COD_{paper, i}$  expressed in kg/air dried tonne — ADT), shall be weighted according to the proportion of each pulp or laminating paper used (pulp 'i', or paper 'i', with respect to air dried tonne of pulp, or paper), and summed together. The weighted COD emission for the pulps, or laminating papers, is then added to the measured COD emission from the board production to give a total COD emission,  $COD_{total}$ .

The weighted COD reference value for the pulp production or laminating paper production shall be calculated in the same manner, as the sum of the weighted reference values for each pulp or laminating paper used and added to the reference value for the board production to give a total COD reference value  $COD_{ref, total}$ . The reference values for each pulp or laminating paper type used and for the board production are given in the Table 1.

Finally, the total COD emission shall be divided by the total COD reference value as follows:

$$P_{COD} = \frac{COD_{total}}{COD_{ref, total}} = \frac{\sum_{i=1}^n [pulp \text{ or } laminating \text{ paper}, i \times COD_{pulp \text{ or } laminating \text{ paper}, i}] + COD_{board \text{ machine}}}{\sum_{i=1}^n [pulp \text{ or } laminating \text{ paper}, i \times COD_{ref, pulp \text{ or } laminating \text{ paper}, i}] + COD_{ref \text{ board machine}}}$$

Table 1

**Reference values for emissions from different pulp types and from board production**

Pulp grade/Board	Emissions (kg/ADT) (*)			
	COD <sub>reference</sub>	S <sub>reference</sub>	NOx <sub>reference</sub>	P <sub>reference</sub>
Bleached chemical pulp (other than sulphite)	18	0,6	1,6	0,045 (*)
Bleached chemical pulp (sulphite)	25,0	0,6	1,6	0,045
Unbleached chemical pulp	10,0	0,6	1,6	0,04
CTMP	15,0	0,2	0,3	0,01
TMP/groundwood pulp	3,0	0,2	0,3	0,01
Recycled fibres pulp	2,0	0,2	0,3	0,01
Laminating bleached kraft paper	19	0,9	2,4	0,055
Laminating unbleached kraft paper	11	0,9	2,4	0,055
Laminating recycled paper	3	0,5	1,1	0,02
Board production (non-integrated mills where all pulps used are purchased market pulps)	1	0,3	0,8	0,01
Board production (integrated mills)	1	0,3	0,7	0,01

(\*) Exemption from this level, up to a level of 0,1 shall be given where it can be demonstrated that the higher level of P is due to P naturally occurring in the wood pulp.

In case of a co-generation of heat and electricity at the same plant the emissions of S and NO<sub>x</sub> resulting from electricity generation can be subtracted from the total amount. The following equation can be used to calculate the proportion of the emissions resulting from electricity generation:

$$2 \times (\text{MWh}(\text{electricity})) / [2 \times \text{MWh}(\text{electricity}) + \text{MWh}(\text{heat})]$$

The electricity in this calculation is the electricity produced at the co-generation plant.

The heat in this calculation is the net heat delivered from the power plant to the pulp/laminating paper/board production.

*Assessment and verification:* the applicant shall provide detailed calculations showing compliance with this criterion, together with related supporting documentation which shall include test reports using the following test methods: COD: ISO 6060; NO<sub>x</sub>: ISO 11564; S(oxid.): EPA No 8; S(red.): EPA No 16A; S content in oil: ISO 8754; S content in coal: ISO 351; P: EN ISO 6878, APAT IRSA CNR 4110 or Dr Lange LCK 349.

The supporting documentation shall include an indication of the measurement frequency and the calculation of the points for COD, S and NO<sub>x</sub>. It shall include all emissions of S and NO<sub>x</sub> which occur during the production of pulp, laminating paper and board, including steam generated outside the production site, except those emissions related to the production of electricity. Measurements shall include recovery boilers, lime kilns, steam boilers and destructor furnaces for strong smelling gases. Diffuse emissions shall be taken into account. Reported emission values for S to air shall include both oxidised and reduced S emissions (dimethyl sulphide, methyl mercaptan, hydrogen sulphide and the like). The S emissions related to the heat energy generation from oil, coal and other external fuels with known S content may be calculated instead of measured, and shall be taken into account.

Measurements of emissions to water shall be taken on unfiltered and unsettled samples either after treatment at the plant or after treatment by a public treatment plant. The period for the measurements shall be based on the production during 12 months. In case of a new or a rebuilt production plant, the measurements shall be based on at least 45 subsequent days of stable running of the plant. The measurement shall be representative of the respective campaign.

In case of integrated mills, due to the difficulties in getting separate emission figures for pulp, laminating paper and board, if only a combined figure for pulp, laminating paper and board production is available, the emission values for pulp(s) shall be set to zero and the figure for the board mill shall include pulp, laminating paper and board production.

(b) AOX

The weighted average value of AOX released from the productions of the pulps used in the substrate shall not exceed 0,170 kg/ADT board.

AOX emissions from each individual pulp used in the board shall not exceed 0,250 kg/ADT pulp.

*Assessment and verification:* the applicant shall provide test reports using the following test method: AOX ISO 9562 accompanied by detailed calculations showing compliance with this criterion, together with related supporting documentation.

The supporting documentation shall include an indication of the measurement frequency. AOX shall only be measured in processes where chlorine compounds are used for the bleaching of the pulp. AOX need not be measured in the effluent from non-integrated board production or in the effluents from pulp production without bleaching or where the bleaching is performed with chlorine-free substances.

Measurements shall be taken on unfiltered and unsettled samples either after treatment at the plant or after treatment by a public treatment plant. The period for the measurements shall be based on the production during 12 months. In case of a new or a re-built production plant, the measurements shall be based on at least 45 subsequent days of stable running of the plant. The measurement shall be representative of the respective campaign.

(c) CO<sub>2</sub>

The emissions of carbon dioxide from non-renewable sources shall not exceed 1 000 kg per tonne of board produced, including emissions from the production of electricity (whether on-site or off-site). For non-integrated mills (where all pulps used are purchased market pulps) the emissions shall not exceed 1 100 kg per tonne. The emissions shall be calculated as the sum of the emissions from the pulp and board production.

*Assessment and verification:* the applicant shall provide detailed calculations showing compliance with this criterion, together with related supporting documentation.

The applicant shall provide data on the air emissions of carbon dioxide. This shall include all sources of non-renewable fuels during the production of pulp and board, including the emissions from the production of electricity (whether on-site or off-site).

The following emission factors shall be used in the calculation of the CO<sub>2</sub> emissions from fuels:

Table 2

Fuel	CO <sub>2</sub> fossil emission	Unit
Coal	95	g CO <sub>2</sub> fossil/MJ
Crude oil	73	g CO <sub>2</sub> fossil/MJ
Fuel oil 1	74	g CO <sub>2</sub> fossil/MJ
Fuel oil 2-5	77	g CO <sub>2</sub> fossil/MJ
LPG	69	g CO <sub>2</sub> fossil/MJ
Natural gas	56	g CO <sub>2</sub> fossil/MJ
Grid electricity	400	g CO <sub>2</sub> fossil/kWh

The period for the calculations or mass balances shall be based on the production during 12 months. In case of a new or a rebuilt production plant, the calculations shall be based on at least 45 subsequent days of stable running of the plant. The calculations shall be representative of the respective campaign.

For grid electricity, the value quoted in the table above (the European average) shall be used unless the applicant presents documentation establishing the average value for their suppliers of electricity (contracting supplier or national average), in which case the applicant may use this value instead of the value quoted in the table.

The amount of energy from renewable sources <sup>(1)</sup> purchased and used for the production processes shall not be considered in the calculation of the CO<sub>2</sub> emissions: appropriate documentation that this kind of energy are actually used at the mill or are externally purchased shall be provided by the applicant.

## Criterion B2 — Energy use

## (a) Electricity

The electricity consumption related to the pulp, laminating paper and the board production shall be expressed in terms of points (P<sub>E</sub>) as detailed below.

The number of points, P<sub>E</sub>, shall be less than or equal to 1,5.

<sup>(1)</sup> As defined in Directive 2009/28/EC of the European Parliament and of the Council (OJ L 140, 5.6.2009, p. 16).

The calculation of  $P_E$  shall be made as follows.

Calculation for pulp or laminating paper production: For each pulp, laminating paper  $i$  used, the related electricity consumption ( $E_{\text{pulp or laminated paper, } i}$  expressed in kWh/ADT) shall be calculated as follows:

$$E_{\text{pulp or laminating paper, } i} = \text{Internally produced electricity} + \text{purchased electricity} - \text{sold electricity}$$

Calculation for board production: Similarly, the electricity consumption related to the board production ( $E_{\text{board}}$ ) shall be calculated as follows:

$$E_{\text{board}} = \text{Internally produced electricity} + \text{purchased electricity} - \text{sold electricity}$$

Finally, the points for pulp, laminating paper and board production shall be combined to give the overall number of points ( $P_E$ ) as follows:

$$P_E = \frac{\sum_{i=1}^n [\text{pulp or laminated paper, } i \times E_{\text{pulp or laminated, } i}] + E_{\text{board}}}{\sum_{i=1}^n [\text{pulp or laminated paper, } i \times E_{\text{refpulp or laminated, } i}] + E_{\text{refboard}}}$$

In case of integrated mills, due to the difficulties in getting separate electricity figures for pulp, laminating paper and board, where only a combined figure for pulp, laminating paper and board production is available, the electricity values for pulp(s) shall be set to zero and the figure for the board mill shall include pulp, laminating paper and board production.

(b) Fuel (heat)

The fuel consumption related to the pulp, laminating paper and the board production shall be expressed in terms of points ( $P_F$ ) as detailed below.

The number of points,  $P_F$ , shall be less than or equal to 1,5.

The calculation of  $P_F$  shall be made as follows.

Calculation for pulp or laminating paper production: For each pulp, laminating paper  $i$  used, the related fuel consumption ( $F_{\text{pulp or laminated paper, } i}$  expressed in kWh/ADT) shall be calculated as follows:

$$F_{\text{pulp or laminating paper, } i} = \text{Internally produced fuel} + \text{purchased fuel} - \text{sold fuel} - 1,25 \times \text{internally produced electricity}$$

*Note:*

$F_{\text{pulp or laminating paper, } i}$  (and its contribution to  $P_{F, \text{pulp or laminating paper}}$ ) need not be calculated for mechanical pulp unless it is market air dried mechanical pulp containing at least 90 % dry matter.

The amount of fuel used to produce the sold heat shall be added to the term 'sold fuel' in the equation above.

Calculation for board production: Similarly the fuel consumption related to the board production ( $F_{\text{board}}$ , expressed in kWh/ADT), shall be calculated as follows:

$$F_{\text{board}} = \text{Internally produced fuel} + \text{purchased fuel} - \text{sold fuel} - 1,25 \times \text{internally produced electricity}$$

Finally, the points for pulp and board production shall be combined to give the overall number of points ( $P_F$ ) as follows:

$$P_F = \frac{\sum_{i=1}^n [\text{pulp or laminating paper}, i \times F_{\text{pulp or laminating paper}, i}] + F_{\text{board}}}{\sum_{i=1}^n [\text{pulp or laminating paper}, i \times F_{\text{refpulp or laminating paper}, i}] + F_{\text{refboard}}}$$

Table 3

## Reference values for electricity and fuel

Pulp grade	Fuel kWh/ADT $F_{\text{reference}}$	Electricity kWh/ADT $E_{\text{reference}}$
Chemical pulp	4 000 <i>(Note: for air dry market pulp containing at least 90 % dry mater (admp), this value may be upgraded by 25 % for the drying energy)</i>	800
Mechanical pulp	900 <i>(Note: this value is only applicable for admp)</i>	1 900
CTMP	1 000	2 000
Recycled fibre pulp	1 800 <i>(Note: for admp, this value may be upgraded by 25 % for the drying energy)</i>	800
Laminating kraft paper (bleached or unbleached)	6 100	1 600
Laminating recycled paper	3 900	1 600
Board production	2 100	800

*Assessment and verification (for both (a) and (b)):* the applicant shall provide detailed calculations showing compliance with this criterion, together with all related supporting documentation. Reported details shall therefore include the total electricity and fuel consumption.

The applicant shall calculate all energy inputs, divided into heat/fuels and electricity used during the production of pulp and board, including the energy used in the de-inking of waste papers for the production of recycled board. Energy used in the transport of raw materials, as well as conversion and packaging, is not included in the energy consumption calculations.

Total heat energy includes all purchased fuels. It also includes heat energy recovered by incinerating liquors and wastes from on-site processes (e.g. wood waste, sawdust, liquors, waste paper, paper broke), as well as heat recovered from the internal generation of electricity — however, the applicant need only count 80 % of the heat energy from such sources when calculating the total heat energy.

Electric energy means net imported electricity coming from the grid and internal generation of electricity measured as electric power. Electricity used for wastewater treatment need not be included.

Where steam is generated using electricity as the heat source, the heat value of the steam shall be calculated, then divided by 0,8 and added to the total fuel consumption.

In case of integrated mills, due to the difficulties in getting separate fuel (heat) figures for pulp, laminating paper and board, if only a combined figure for pulp, laminating paper and board production is available, the fuel (heat) values for pulp(s) shall be set to zero and the figure for the board mill shall include pulp, laminating paper and board production.

#### Criterion B3 — Excluded or limited substances and mixtures

*Assessment and verification:* the applicant shall supply a list of the chemical products used in the pulp and board production, together with appropriate documentation (such as SDSs). This list shall include the quantity, function and suppliers of all the substances used in the production process.

##### (a) Hazardous substances and mixtures

In accordance with Article 6(6) of Regulation (EC) No 66/2010 of the European Parliament and of the Council <sup>(1)</sup> the board shall not contain substances referred to in Article 57 of Regulation (EC) No 1907/2006 nor substances or mixtures meeting the criteria for classification with the hazard classes or categories specified below.

List of hazard statements and risk phrases:

Hazard Statement <sup>(1)</sup>	Risk Phrase <sup>(2)</sup>
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	R26
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

<sup>(1)</sup> Regulation (EC) No 66/2010 of the European Parliament and of the Council of 25 November 2009 on the EU Ecolabel (OJ L 27, 30.1.2010, p. 1).

Hazard Statement (¹)	Risk Phrase (²)
H360D May damage the unborn child	R61
H360FD May damage fertility. May damage the unborn child	R60; R61; R60-61
H360Fd May damage fertility. Suspected of damaging the unborn child	R60-R63
H360Df May damage the unborn child. Suspected of damaging fertility	R61-R62
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; R39/24; R39/25; R39/26; R39/27; R39/28
H371 May cause damage to organs	R68/20; R68/21; R68/22
H372 Causes damage to organs through prolonged or repeated exposure	R48/25; R48/24; R48/23
H373 May cause damage to organs through prolonged or repeated exposure	R48/20; R48/21; R48/22
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 harmful 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

Hazard Statement <sup>(1)</sup>	Risk Phrase <sup>(2)</sup>
EUH070 Toxic by eye contact	R39-41
No commercial dye formulation, colorants, surface-finishing agents, auxiliaries and coating materials shall be used on either pulp or board that has been assigned or may be assigned at the time of application the hazard statement H317: May cause allergic skin reaction.	R43

<sup>(1)</sup> As provided for in Regulation (EC) No 1272/2008 of the European Parliament and of the Council.

<sup>(2)</sup> As provided for in Council Directive 67/548/EEC.

The use of substances or mixtures which change their properties upon processing (e.g. become no longer bioavailable, undergo chemical modification) so that the identified hazard no longer applies are exempted from the above requirement.

Concentration limits for substances or mixtures which may be or have been assigned the hazard statements or risk phrase listed above, meeting the criteria for classification in the hazard classes or categories, and for substances meeting the criteria of Article 57(a), (b) or (c) of Regulation (EC) No 1907/2006, shall not exceed the generic or specific concentration limits determined in accordance with the Article 10 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council <sup>(1)</sup>. Where specific concentration limits are determined they shall prevail over the generic ones.

Concentration limits for substances meeting criteria of Article 57(d), (e) or (f) of Regulation (EC) No 1907/2006 shall not exceed 0,10 % weight by weight.

*Assessment and verification:* the applicant shall prove compliance with the criterion providing data on the amount (kg/ADT board produced) of substances used in the process and that the substances referred to in this criterion are not retained in the final product above concentration limits specified. The concentration for substances and mixtures shall be specified in the Safety Data Sheets in accordance with Article 31 of Regulation (EC) No 1907/2006.

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

No derogation from the prohibition set out in Article 6(6) of Regulation (EC) No 66/2010 shall be granted concerning substances identified as substances of very high concern and included in the list provided for Article 59 of Regulation (EC) No 1907/2006, present in mixtures, in an article or in any homogenous part of a complex article in concentrations higher than 0,10 %. Specific concentration limits determined in accordance with Article 10 of Regulation (EC) No 1272/2008 shall apply in case it is lower than 0,10 %.

*Assessment and verification:* the list of substances identified as substances of very high concern and included in the candidate list in accordance with Article 59 of Regulation (EC) No 1907/2006 can be found here:

[http://echa.europa.eu/chem\\_data/authorisation\\_process/candidate\\_list\\_table\\_en.asp](http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp)

Reference to the list shall be made on the date of application.

The applicant shall prove compliance with the criterion providing data on the amount (kg/ADT board produced) of substances used in the process and that the substances referred to in this criterion are not retained in the final product above concentration limits specified. The concentration shall be specified in the safety data sheets in accordance with Article 31 of Regulation (EC) No 1907/2006.

(c) Chlorine

Chlorine gas shall not be used as a bleaching agent. This requirement does not apply to chlorine gas related to the production and use of chlorine dioxide.

<sup>(1)</sup> 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 (OJ L 353, 31.12.2008, p. 1).

*Assessment and verification:* the applicant shall provide a declaration from the pulp producer(s) that chlorine gas has not been used as a bleaching agent. Note: while this requirement also applies to the bleaching of recycled fibres, it is accepted that the fibres in their previous life-cycle may have been bleached with chlorine gas.

## (d) APEOs

Alkylphenol ethoxylates or other alkylphenol derivatives shall not be added to cleaning chemicals, de-inking chemicals, foam inhibitors, dispersants or coatings. Alkylphenol derivatives are defined as substances that upon degradation produce alkyl phenols.

*Assessment and verification:* the applicant shall provide a declaration(s) from their chemical supplier(s) that alkylphenol ethoxylates or other alkylphenol derivatives have not been added to these products.

## (e) Residual monomers

The total quantity of residual monomers (excluding acrylamide) that may be or have been assigned any of the following risk phrases (or combinations thereof) and are present in coatings, retention aids, strengtheners, water repellents or chemicals used in internal and external water treatment shall not exceed 100 ppm (calculated on the basis of their solid content):

Hazard Statement <sup>(1)</sup>	Risk Phrase <sup>(2)</sup>
H340 May cause genetic defects	R46
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; R61; R60-61
H360Fd May damage fertility. Suspected of damaging the unborn child	R60-R63
H360Df May damage the unborn child. Suspected of damaging fertility	R61-R62
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 harmful effects to aquatic life	R53

<sup>(1)</sup> As provided for in Regulation (EC) No 1272/2008.

<sup>(2)</sup> As provided for in Directive 67/548/EEC.

Acrylamide shall not be present in coatings, retention aids, strengtheners, water repellents or chemicals used in internal and external water treatment in concentrations higher than 700 ppm (calculated on the basis of their solid content).

The competent body may exempt the applicant from these requirements in relation to chemicals used in external water treatment.

*Assessment and verification:* the applicant shall provide from their chemical supplier(s) a declaration of compliance with this criterion, together with appropriate documentation (such as Safety Data Sheets).

(f) Surfactants in de-inking

All surfactants used in de-inking shall be ultimately biodegradable.

*Assessment and verification:* the applicant shall provide from their chemical supplier(s) a declaration of compliance with this criterion together with the relevant safety data sheets or test reports for each surfactant which shall indicate the test method, threshold and conclusion stated, using one of the following test method and pass levels: OECD 302 A-C (or equivalent ISO standards), with a percentage degradation (including adsorption) within 28 days of at least 70 % for 302 A and B, and of at least 60 % for 302 C.

(g) Biocides

The active components in biocides or biostatic agents used to counter slime-forming organisms in circulation water systems containing fibres shall not be potentially bio-accumulative. Biocides' bioaccumulation potentials are characterised by log Pow (log octanol/water partition coefficient) < 3,0 or an experimentally determined bioconcentration factor (BCF) ≤ 100.

*Assessment and verification:* the applicant shall provide from their chemical supplier(s) a declaration of compliance with this criterion together with the relevant material safety data sheet or test report which shall indicate the test method, threshold and conclusion stated, using the following test methods: OECD 107, 117 or 305 A-E.

(h) Azo dyes

Azo dyes that may cleave to any of the following aromatic amines shall not be used, in accordance with Annex XVII to Regulation (EC) No 1907/2006:

1. 4-aminobiphenyl	(92-67-1)
2. benzidine	(92-87-5)
3. 4-chloro-o-toluidine	(95-69-2)
4. 2-naphthylamine	(91-59-8)
5. o-aminoazotoluene	(97-56-3)
6. 2-amino-4-nitrotoluene	(99-55-8)
7. p-chloroaniline	(106-47-8)
8. 2,4-diaminoanisole	(615-05-4)
9. 4,4'-diaminodiphenylmethane	(101-77-9)
10. 3,3'-dichlorobenzidine	(91-94-1)
11. 3,3'-dimethoxybenzidine	(119-90-4)

12. 3,3'-dimethylbenzidine	(119-93-7)
13. 3,3'-dimethyl-4,4'-diaminodiphenylmethane	(838-88-0)
14. p-cresidine	(120-71-8)
15. 4,4'-methylene-bis-(2-chloroaniline)	(101-14-4)
16. 4,4'-oxydianiline	(101-80-4)
17. 4,4'-thiodianiline	(139-65-1)
18. o-toluidine	(95-53-4)
19. 2,4-diaminotoluene	(95-80-7)
20. 2,4,5-trimethylaniline	(137-17-7)
21. 4-aminoazobenzene	(60-09-3)
22. o-anisidine	(90-04-0)

*Assessment and verification:* the applicant shall provide from their chemical supplier(s) a declaration of compliance with this criterion.

(i) Metal complex dye stuffs or pigments

Dyes or pigments based on lead, copper, chromium, nickel or aluminium shall not be used. Copper phthalocyanine dyes or pigments may, however, be used.

*Assessment and verification:* the applicant shall provide from their chemical supplier(s) a declaration of compliance.

(j) Ionic impurities in dye stuffs

The levels of ionic impurities in the dye stuffs used shall not exceed the following: Ag 100 ppm; As 50 ppm; Ba 100 ppm; Cd 20 ppm; Co 500 ppm; Cr 100 ppm; Cu 250 ppm; Fe 2 500 ppm; Hg 4 ppm; Mn 1 000 ppm; Ni 200 ppm; Pb 100 ppm; Se 20 ppm; Sb 50 ppm; Sn 250 ppm; Zn 1 500 ppm.

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

Criterion B4 — Waste management

All pulp and board production sites shall have a system for handling waste (as defined by the relevant regulatory authorities of the pulp and board production sites in question) and residual products arising from the production of the eco-labelled product. The system shall be documented or explained in the application and include information on at least the following points:

- procedures for separating and using recyclable materials from the waste stream,
- procedures for recovering materials for other uses, such as incineration for raising process steam or heating, or agricultural use,
- procedures for handling hazardous waste (as defined by the relevant regulatory authorities of the pulp and board production sites in question).

*Assessment and verification:* the applicant shall provide a detailed description of the procedures adopted for the waste management of each of the sites concerned and a declaration of compliance with the criterion.

**Criterion 2 — Fibres: sustainable forest management**

The fibre raw material may be recycled or virgin fibre.

Virgin fibres shall be covered by valid sustainable forest management and chain of custody certificates issued by an independent third party certification scheme such as FSC, PEFC or equivalent.

However, where certification schemes allow mixing of certified material, recycled materials and uncertified material in a product or product line, the proportion of uncertified virgin material shall not exceed 30 % of the total fibre raw material. Such uncertified material shall be covered by a verification system which ensures that it is legally sourced and meets any other requirement of the certification scheme with respect to uncertified material.

The certification bodies issuing forest and/or chain of custody certificates shall be accredited/recognised by that certification scheme.

*Assessment and verification:* the applicant shall provide appropriate documentation indicating the types, quantities and origins of fibres used in the pulp and the board production.

Where virgin fibres are used, the product shall be covered by valid forest management and chain of custody certificates issued by an independent third party certification scheme, such as PEFC, FSC or equivalent. If the product or product line includes uncertified material, proof should be provided that the uncertified material is less than 30 % and is covered by a verification system which ensures that it is legally sourced and meets any other requirement of the certification scheme with respect to uncertified material.

Where recycled fibres are used, the applicant shall provide a declaration stating the average amount of grades of recovered paper used for the product in accordance with the standard EN 643 or an equivalent standard. The applicant shall provide a declaration that no mill broke (own or purchased) was used for the percentage calculation.

*Criteria applicable to converting processes*

**Criterion 3 — Excluded or limited substances and mixtures**

## (a) Hazardous substances and mixtures

Consumables that could end up in the final converted paper product, and that contain substances and/or mixtures meeting the criteria for classification with the hazard statements or risk phrases specified below in accordance with Regulation (EC) No 1272/2008 or Council Directive 67/548/EEC <sup>(1)</sup> or substances referred to in Article 57 of Regulation (EC) No 1907/2006 shall not be used for printing, coating, and finishing operations of the final converted paper product.

This requirement shall not apply to toluene for use in rotogravure printing processes where a closed or encapsulated installation or recovery system, or any equivalent system, is in place to control and monitor fugitive emissions and where the recovery efficiency is at least 92 %. UV varnishes and UV inks classified H412/R52-53 are also exempted from this requirement.

The non-paper components that are part of the final converted paper product shall not contain the substances referred to above.

*List of hazard statements and risk phrases*

Hazard Statement <sup>(1)</sup>	Risk Phrase <sup>(2)</sup>
H300 Fatal if swallowed	R28
H301 Toxic if swallowed	R25

<sup>(1)</sup> Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (OJ 196, 16.8.1967, p. 1).

Hazard Statement (¹)	Risk Phrase (²)
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 or R26
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; R61; R60/61
H360Fd May damage fertility. Suspected of damaging the unborn child	R60; R63
H360Df May damage the unborn child. Suspected of damaging fertility	R61; R62
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; R39/24; R39/25; R39/26; R39/27; R39/28
H371 May cause damage to organs	R68/20; R68/21; R68/22
H372 Causes damage to organs through prolonged or repeated exposure	R48/25; R48/24; R48/23
H373 May cause damage to organs through prolonged or repeated exposure	R48/20; R48/21; R48/22
H400 Very toxic to aquatic life	R50
H410 Very toxic to aquatic life with long-lasting effects	R50/53

Hazard Statement <sup>(1)</sup>	Risk Phrase <sup>(2)</sup>
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 harmful 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

<sup>(1)</sup> As provided for in Regulation (EC) No 1272/2008.

<sup>(2)</sup> As provided for in Directive 67/548/EEC.

Substances or mixtures which change their properties upon processing (e.g. become no longer bioavailable, undergo chemical modification) so that the identified hazard no longer applies are exempted from the above requirement.

Concentration limits for substances which may be, or have been, assigned the hazard statements or risk phrase listed above or which meet the criteria for classification in the hazard classes or categories, and concentration limits for substances meeting the criteria of Article 57 (a), (b) or (c) of Regulation (EC) No 1907/2006, shall not exceed the generic or specific concentration limits determined in accordance with the Article 10 of Regulation (EC) No 1272/2008. Where specific concentration limits are determined they shall prevail over the generic ones.

Concentration limits for substances meeting criteria set out in Article 57(d), (e) or (f) of Regulation (EC) No 1907/2006 shall not exceed 0,10 % weight by weight.

*Assessment and verification:* for substances not already classified in accordance with Regulation (EC) No 1272/2008, the applicant shall prove compliance with these criteria by providing: (i) a declaration that the non-paper components that are part of the final product do not contain the substances referred to in these criteria in concentration above the authorised limits; (ii) a declaration that none of the consumables used for printing, coating and finishing operations of the final converted paper product contain the substances referred to in these criteria in concentration above the authorised limits; (iii) a list of all consumables used for the printing, finishing and coating of the converted paper products. This list shall include the quantity, function and suppliers of all the consumables used in the production process.

The applicant shall demonstrate compliance with this criterion by providing a declaration from their chemical supplier(s) on the non-classification of each substance into any of the hazard classes associated to the hazard statements referred to in the above list 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. This declaration shall be supported by summarised information on the relevant characteristics associated to the hazard statements referred to in the above list, to the level of detail specified in section 10, 11 and 12 of Annex II to Regulation (EC) No 1907/2006 (Requirements for the Compilation of Safety Data Sheets).

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 is strongly encouraged.

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

For substances listed in Annexes IV and V to REACH, exempted from registration obligations under Article 2(7)(a) and (b) of REACH Regulation (EC) No 1907/2006, a declaration to this effect will suffice to comply with the requirements set out above.

The applicant shall provide appropriate documentation on the recovery efficiency of the closed/encapsulated installation/recovery system, or any equivalent system, that has been put in place to deal with the use of toluene in rotogravure printing processes.

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

No derogation from the prohibition set out in Article 6(6) of Regulation (EC) No 66/2010 shall be granted concerning substances identified as substances of very high concern and included in the list provided for in Article 59 of Regulation (EC) No 1907/2006, present in mixtures in concentrations higher than 0,1 %. Specific concentration limits determined in accordance with Article 10 of Regulation (EC) No 1272/2008 shall apply where the concentration is lower than 0,10 %.

*Assessment and verification:* the list of substances identified as substances of very high concern and included in the candidate list in accordance with Article 59 of Regulation (EC) No 1907/2006 can be found here:

[http://echa.europa.eu/chem\\_data/authorisation\\_process/candidate\\_list\\_table\\_en.asp](http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp)

Reference to the list shall be made on the date of application.

The applicant shall prove compliance with the criterion providing data on the amount of substances used for the printing of the converted paper products and a declaration stating that the substances referred to in this criterion are not retained in the final product above the concentration limits specified. The concentration shall be specified in the safety data sheets in accordance with Article 31 of Regulation (EC) No 1907/2006.

(c) Biocides

Biocides, either as part of the formulation or as part of any mixture included in the formulation, that are used to preserve the product and that are classified H410/R50-53 or H411/R51-53 in accordance with Directive 67/548/EEC, Directive 1999/45/EC of the European Parliament and of the Council <sup>(1)</sup> or Regulation (EC) No 1272/2008, are permitted only if their bioaccumulation potentials are characterised by log Pow (log octanol/water partition coefficient) < 3,0 or an experimentally determined bioconcentration factor (BCF) ≤ 100.

*Assessment and verification:* the applicant shall provide copies of the material safety data sheets for all biocides used during the different production stages, together with a documentation of the concentrations of the biocides in the final product.

(d) Washing agents

Washing agents used for cleaning in printing processes and/or sub-processes that contain aromatic hydrocarbon shall only be allowed if they are in compliance with point 3(b) and if one of the following conditions is fulfilled:

- (i) the amount of aromatic hydrocarbons in the washing agent products used does not exceed 0,10 % (w/w);
- (ii) the amount of aromatic hydrocarbon-based washing agent used annually does not exceed 5 % of the total amount of washing agent used in one calendar year.

This criterion shall not apply to toluene used as washing agent in rotogravure printing.

*Assessment and verification:* the applicant shall provide the Safety Data Sheet for each washing agent used in a printing house during the year to which the annual consumption refers. The washing agent suppliers shall provide declarations of the aromatic hydrocarbon contents in the washing agents.

<sup>(1)</sup> Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations (OJ L 200, 30.7.1999, p. 1).

(e) Alkyl phenol ethoxylates — Halogenated solvents — Phthalates

The following substances or preparations shall not be added to inks, dyes, toners, adhesives, or washing agents or other cleaning chemicals used for the printing of the converted paper product:

- Alkyl phenol ethoxylates and their derivatives that may produce alkyl phenols by degradation.
- Halogenated solvents that at the time of application are classified in the hazard or risk categories listed in point 3(a).
- Phthalates that at the time of application are classified with risk phrases H360F, H360D, H361f in accordance with Regulation (EC) No 1272/2008.

*Assessment and verification:* the applicant shall provide a declaration of compliance with this criterion.

(f) Printing inks, toners, inks, varnishes, foils and laminates

The following heavy metals or their compounds shall not be used as printing inks, toners, inks, varnishes, foils and laminates (whether as a substance or as part of any preparation used): cadmium, copper (excluding copper-phthalocyanine), lead, nickel, chromium VI, mercury, arsenic, soluble barium, selenium, antimony. Cobalt can only be used up to 0,10 % (w/w)

Ingredients may contain traces of those metals up to 0,010 % (w/w) deriving from impurities in the raw materials.

*Assessment and verification:* the applicant shall provide a declaration of compliance with this criterion as well as declarations from ingredient suppliers.

(g) Metal components

Metals shall not be coated with cadmium, chromium, nickel, zinc, mercury, lead, tin and their compounds.

The surface treatment of metal surfaces with nickel or zinc can be accepted for small parts (such as rivet, eyelet, and flat bar mechanisms) where this is necessary due to heavy physical wear.

Both nickel plating and zinc galvanisation shall make use of wastewater treatment, ion exchange technology, membrane technology or equal technology in order to recycle the chemical products as much as possible.

Emissions from surface treatment shall be recycled and destroyed. The system shall be closed without drainage, with an exception for zinc where the emission can be a maximum of 0,50 mg/l.

The chemical products used in the surface treatment must be in compliance with the criteria 3 (c) Biocides and 3 (e) Alkyl phenol ethoxylates — Halogenated solvents — Phthalates.

This requirement applies to each separate metal-type component exceeding 10 % by weight of the final products in the subcategory of suspension file, folders with metal fastener, ring binder and lever arch file.

*Assessment and verification:* the applicant shall provide a declaration of compliance with this criterion.

**Criterion 4 — Recyclability**

The converted paper product shall be recyclable. The non-paper components of the converted paper product shall be easily removable to ensure that those components will not hinder the recycling process.

- (a) Wet strength agents may be used only if the recyclability of the finished product can be proved.
- (b) Non-soluble adhesives may be used only if their removability can be proved.
- (c) Coating varnishes and lamination, including polyethene and/or polyethene/polypropylene, may be used only for binders, folders, exercise books, notebooks and diaries.

*Assessment and verification:* the applicant shall provide the test result of the recyclability for wet strength agents and removability for adhesives. The reference test methods are PTS method PTS-RH 021/97 (for wet strength agents), INGEDE Method 12 (for non-soluble adhesive removability), or equivalent test methods. The applicant shall provide a declaration that coated and laminated converted paper products are in compliance with point 3(c). Where a part of a converted paper product is easily removable (for instance a metal bar in a suspension file or a plastic cover or reusable exercise book cover), the recyclability test may be made without this component. The easiness of removal of the non-paper components shall be proven via a declaration of the paper collecting company, the recycling company or an equivalent organisation. Test methods shown by a competent and independent third party as giving equivalent results may also be used.

#### Criterion 5 — Emissions

##### (a) Emissions to water

Rinsing water containing silver from film processing, as well as from plate production, and photo-chemicals shall not be discharged to a sewage treatment plant.

*Assessment and verification:* the applicant shall provide a declaration of compliance with this criterion, together with a description of the management of photo-chemicals and silver containing rinsing water on site. Where the film processing and/or the plate production are outsourced, the sub-contractor shall provide a declaration of compliance with this criterion, together with a description of the management of photo-chemicals and silver containing rinsing water at the subcontractors.

In **Rotogravure printing**, the amount of Cr and Cu discharged into a sewage treatment plant must not exceed, respectively, **45 mg per m<sup>2</sup>** and **400 mg per m<sup>2</sup>** of printing cylinder surface area used in the press.

*Assessment and verification:* discharges of Cr and Cu into the sewage shall be checked at rotogravure printing plants after treatment and before their release. A representative sample of Cr and Cu discharges shall be collected each month. At least one annual analytical test shall be carried out by an accredited laboratory to determine the content of Cr and Cu in a representative sub-sample of these samples. Compliance with this criterion shall be assessed by dividing the content of Cr and Cu, as determined by the annual analytical test, by the cylinder surface used in the press during the printing. The cylinder surface used in the press during printing is calculated by multiplying the cylinder surface ( $= 2\pi rL$ , where  $r$  is the radius and  $L$  the length of the cylinder) by the number of printing productions during a year (= number of different printing jobs). The reference test methods are for Cr: EN ISO 11885 (Water quality. Determination of selected elements by inductively coupled plasma optical emission spectrometry (ICP-OES)), and EN 1233 (Water quality. Determination of chromium. Atomic absorption spectrometric methods), and for Cu: EN ISO 11885 (Water quality. Determination of selected elements by inductively coupled plasma optical emission spectrometry (ICP-OES)).

##### (b) Emissions to air

Volatile Organic Compounds (VOC)

The following criterion must be met:

$$(P_{\text{VOC}} - R_{\text{VOC}})/P_{\text{paper}} < 5 \text{ [kg/tonnes]}$$

Where:

$P_{\text{VOC}}$  = the annual total kilograms of VOC contained in the purchased chemical products used for the annual total production of converted products

$R_{\text{VOC}}$  = the annual total kilograms of VOC destroyed by abatement, recovered from printing processes and sold, or reused

$P_{\text{paper}}$  = the annual total tonnes of paper purchased and used for the production of converted products.

Where a printing/converting house uses different printing technologies, this criterion shall be fulfilled for each one separately.

The  $P_{\text{VOC}}$  term shall be calculated from SDS information related to VOC content or from an equivalent declaration provided by the supplier of chemical products.

The  $R_{\text{VOC}}$  term shall be calculated from the declaration on the content of VOC contained in the chemical products sold or from the internal counting register (or any other equivalent document) reporting the annual amount of VOC recovered and reused on site.

Specific conditions for heat-set printing:

- (i) For heat-set offset printing with an integrated after-burner unit in place for the drying unit, the following calculation method shall apply:

$P_{\text{VOC}} = 90\%$  of the annual total kilograms of VOC contained in damping solutions used for the annual production of converted products + 85 % of the annual total kilograms of VOC contained in washing agents used for the annual production of converted products.

- (ii) For heat-set offset printing, without an integrated after-burner unit in place for the drying unit, the following calculation method shall apply:

$P_{\text{VOC}} = 90\%$  of the annual total kilograms of VOC contained in damping solutions used for the annual production of converted products + 85 % of the annual total kilograms of VOC contained in washing agents used for the annual production of converted products + 10 % of annual total kilograms of VOC contained in the printing inks used for the annual production of converted products.

For (i) and (ii), proportionately lower percentages than 90 % and 85 % may be used in this calculation if more than 10 % or 15 % respectively of annual total kilograms of VOC contained in the damping solutions or washing agents used for the annual production of converted products are shown to be abated in the treatment system for combusting gases from the drying process.

*Assessment and verification:* a declaration of the VOC content in alcohols, washing agents, inks, damping solutions or other corresponding chemical products shall be provided by the chemical supplier. The applicant shall provide evidence of the calculation according to the criteria laid down above. The period for the calculations shall be based on the production during 12 months. In case of a new or a rebuilt production plant, the calculations shall be based on at least 3 months of representative running of the plant.

#### Criterion 6 — Waste

- (a) Waste management

The facility where the converted paper products are produced shall have in place a system for handling waste, including residual products derived from the production of the converted paper products, as defined by local and national relevant regulatory authorities.

The system shall be documented or explained and shall include information on at least the following procedures:

- (i) handling, collection, separation and use of recyclable materials from the waste stream;
- (ii) recovery of materials for other uses, such as incineration for raising process steam or heating, or agricultural use;
- (iii) handling, collection, separation and disposal of hazardous waste, as defined by the relevant local and national regulatory authorities.

*Assessment and verification:* the applicant shall provide a declaration of compliance with this criterion, together with a description of the procedures adopted for waste management. Where appropriate, the applicant shall provide the corresponding declaration to the local authority every year. Where the waste management is outsourced, the sub-contractor shall provide a declaration of compliance with this criterion as well.

(b) Waste paper

The amount of waste paper 'X' shall not exceed:

- 20 % for envelopes
- 20 % for stationery products
- 10 % for paper bags

where, X = annual kilos of waste paper produced during the converting (including finishing processes) of the ecolabelled converted paper product, divided by annual tonnes of paper purchased and used for the production of ecolabelled converted paper product.

Where the printing house carries out finishing processes on behalf of another printing house, the amount of waste paper produced in those processes shall not be included in the calculation of 'X'.

Where the finishing processes are outsourced to another company, the amount of waste paper resulting from the outsourced work shall be calculated and declared in the calculation of 'X'.

*Assessment and verification:* the applicant shall provide a description of the calculation of the amount of waste paper, together with a declaration from the contractor collecting the waste paper from the printing house. The outsourcing terms and calculations on the amount of paper waste involved in the finishing processes shall be provided. The period for the calculations shall be based on the production during 12 months. In case of a new or a rebuilt production plant, the calculations shall be based on at least 3 months of representative running of the plant.

**Criterion 7 — Energy use**

The printing/converting house shall establish a register of all energy consuming devices (including machinery, lighting, air conditioning, cooling) and a programme consisting of measures for improvement of energy efficiency.

*Assessment and verification:* the applicant shall provide the register of energy consuming devices together with the improvement programme.

**Criterion 8 — Training**

All members of staff participating in day to day operation shall be given the knowledge necessary to ensure that the EU Ecolabel requirements are fulfilled and continuously improved.

*Assessment and verification:* the applicant shall provide a declaration of compliance with this criterion, together with details of the training programme, its content, and an indication of which staff have received what training and when. The applicant shall provide to the Competent Body also a sample of training material.

**Criterion 9 — Fitness for use**

The product shall be suitable for its purpose.

*Assessment and verification:* the applicant shall provide appropriate documentation in compliance with this criterion. National or commercial standards, where relevant, may be used by the applicant to prove the fitness for use of the converted paper products. For paper carrier bags, the reference test method is EN 13590:2003.

**Criterion 10 — Information on the paper carrier bags**

The following information shall appear on the paper carrier bags:

'Please reuse this bag'

*Assessment and verification:* the applicant shall provide a sample layout of the paper carrier bag bearing the information required.

**Criterion 11 — Information appearing on the EU Ecolabel**

The optional label with text box shall contain the following text:

- This product is recyclable
- Emissions of chemicals to air and water of paper production, printing and converting processes have been limited

In order to avoid the risk of providing confusing messages to consumers between an EU ecolabelled bag and its non EU ecolabelled contents, paper carrier bags shall be designed to be open and to be filled either at the point of purchase or afterwards so that consumers understand that the EU Ecolabel is only valid for the paper carrier bag, and not for the goods added. The EU Ecolabel logo displayed on the bag shall bear the following text 'EU Ecolabelled paper carrier bag'.

The guidelines for the use of the optional label with the text box can be found in the 'Guidelines for the use of the EU Ecolabel logo' on the website:

<http://ec.europa.eu/environment/ecolabel/promo/pdf/logo%20guidelines.pdf>

*Assessment and verification:* the applicant shall provide a sample of the converted paper product showing the label, together with a declaration of compliance with this criterion.

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