

COMMISSION DECISION

of 14 November 1994

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

(94/924/EC)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EEC) No 880/92 of 23 March 1992 on a Community eco-label award scheme ⁽¹⁾, and in particular the second subparagraph of Article 5 (1) thereof,

Whereas the first subparagraph of Article 5 (1) of Regulation (EEC) No 880/92 provides that the conditions for the award of the Community eco-label shall be defined by product group;

Whereas Article 10 (2) of Regulation (EEC) No 880/92 states that the environmental performance of a product shall be assessed by reference to the specific criteria for product groups;

Whereas in accordance with Article 6 of Regulation (EEC) No 880/92 the Commission has consulted the principal interest groups within a consultation forum;

Whereas the measures set out in this Decision are in accordance with the opinion of the committee set up under Article 7 of Regulation (EEC) No 880/92,

HAS ADOPTED THIS DECISION:

Article 1

The product group 'toilet paper' shall mean:

'Rolls or sheets of paper intended for personal hygiene in toilets. The paper normally consists of creped or

embossed paper in one or several plies. The criteria do not apply to paper containing wet strength agents. Related products based on soft paper, such as napkins and wipes, are excluded from the product group.'

Article 2

The environmental performance of the product group as defined in Article 1 shall be assessed by reference to the specific ecological criteria set out in the Annex.

Article 3

The product group definition and the specific ecological criteria for the product group shall be valid for a period of three years from the date on which this Decision takes effect.

Article 4

For administrative purposes, the code number assigned to the product group shall be '004'.

Article 5

This Decision is addressed to the Member States.

Done at Brussels, 14 November 1994.

For the Commission

Yannis PALEOKRASSAS

Member of the Commission

⁽¹⁾ OJ No L 99, 11. 4. 1992, p. 1.

ANNEX

ECO-LABEL CRITERIA FOR TOILET PAPER

Environmental Criteria

- (i) The fibrous raw material for the paper production shall be virgin pulp, or pulp made from waste paper (*), or mixtures thereof. All virgin wood shall originate from regions where forest management (*) is applied.
- (ii) The environmental impact of a product shall be assessed in relation to the following parameters:
- (a) consumption of renewable resources (*);
 - (b) consumption of non-renewable resources (*);
 - (c) emission of carbon dioxide;
 - (d) emission of sulphur/sulphur dioxide;
 - (e) emission of organics to water (COD);
 - (f) emission of chlorinated organics (to water) (AOX);
 - (g) emission of waste (*).

Its performance against each parameter shall be expressed in terms of a load point, in accordance with the system of values and related load points specified in the Table of this document. If the load point for its performance against parameters (c), (d), (e), (f), or (g) is in excess of the values described as 'hurdle' in the system specified in the Table of this document, the product shall not qualify for the eco-label.

(*) The Appendix to this Annex contains definitions of the terms marked with an asterisk.

Table

Parameters, Values and Related load points

Aspect	Basic load point	
Renewable Resources, RR (tonne wood/tonne tissue)	$t \text{ wood}/t < 0,1 = 0$ $0,1 \leq t \text{ wood}/t < 0,7 = 0,3$ $0,7 \leq t \text{ wood}/t < 1,3 = 0,6$ $1,3 \leq t \text{ wood}/t < 1,9 = 0,9$ $1,9 \leq t \text{ wood}/t < 2,5 = 1,2$ $2,5 \leq t \text{ wood}/t < 3,5 = 1,5$ $3,5 \leq t \text{ wood}/t = 2$	Y ₁
Non-Renewable Resources, NRR (TORE/tonne tissue)	$\text{TORE}/t < 0,1 = 0$ $0,1 \leq \text{TORE}/t < 0,2 = 0,3$ $0,2 \leq \text{TORE}/t < 0,3 = 0,6$ $0,3 \leq \text{TORE}/t < 0,4 = 0,9$ $0,4 \leq \text{TORE}/t < 0,5 = 1,2$ $0,5 \leq \text{TORE}/t = 2,4$	Y ₂
Carbon dioxide, CO ₂ (t CO ₂ /tonne tissue)	$t \text{ CO}_2/t < 0,6 = 0$ $0,6 \leq t \text{ CO}_2/t < 1,2 = 1$ $1,2 \leq t \text{ CO}_2/t < 1,8 = 2$ $1,8 \leq t \text{ CO}_2/t < 2,4 = 3$ $2,4 \leq t \text{ CO}_2/t < 3,0 = 4$ $3,0 \leq t \text{ CO}_2/t = \text{Hurdle}$	Y ₃

Aspect	Basic load point	
Sulphur dioxide, SO ₂ (kg S/tonne tissue)	$\text{kg S/t} < 0,5 = 0$ $0,5 \leq \text{kg S/t} < 2,0 = 1$ $2,0 \leq \text{kg S/t} < 4,0 = 2$ $4,0 \leq \text{kg S/t} < 7,0 = 3$ $7,0 \leq \text{kg S/t} < 10,0 = 4$ $10,0 \leq \text{kg S/t} = \text{Hurdle}$	Y ₄
Organics to water, COD (kg COD/tonne tissue)	$\text{kg COD/t} < 6 = 0$ $6 \leq \text{kg COD/t} < 15 = 1$ $15 \leq \text{kg COD/t} < 40 = 2$ $40 \leq \text{kg COD/t} < 60 = 3$ $60 \leq \text{kg COD/t} < 80 = 4$ $80 \leq \text{kg COD/t} = \text{Hurdle}$	Y ₅
Chlorinated organics, AOX (kg AOX/tonne tissue)	$\text{kg AOX/t} < 0,1 = 0$ $0,1 \leq \text{kg AOX/t} < 0,3 = 0,6$ $0,3 \leq \text{kg AOX/t} < 0,5 = 1,2$ $0,5 \leq \text{kg AOX/t} = \text{Hurdle}$	Y ₆
Waste (tonne waste/tonne tissue)	$t \text{ waste/t} < -0,8 = 0$ $-0,8 \leq t \text{ waste/t} < -0,3 = 1$ $-0,3 \leq t \text{ waste/t} < 0,02 = 2$ $0,02 \leq t \text{ waste/t} < 0,2 = 3$ $0,2 \leq t \text{ waste/t} < 0,4 = 4$ $0,4 \leq t \text{ waste/t} = \text{Hurdle}$	Y ₇
Total load points		Σ Y

The Appendix to this Annex shall guide the calculation and testing of a product's performance against these parameters.

- (iii) To obtain the label an applicant must not exceed a total load point sum of 7,5 points, calculated in accordance with the Table.
- (iv) The applicant must not exceed the numbers set as hurdles. This applies to the parameters for CO₂, SO₂, COD, AOX and waste.

Performance criterion

The product shall be suitable for use.

Appendix

Calculation and testing method for each parameter

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1. Definition, calculation and testing of the parameters

In this appendix each of the parameters from the table in the criteria document is defined and the relevant test methods are mentioned.

1.1. Renewable resources

Definition of forest management

Within the context of this Decision forest management will be defined as outlined in resolution H1 'General guidelines for the sustainable management of forest in Europe', as adopted by the Ministerial Conference on the Protection of Forest in Europe, Helsinki, June 1993:

'The stewardship and use of forests and forest land in a way, and at a rate, that maintains their biodiversity, productivity, regeneration capacity, vitality and this potential to fulfil, now and in the future, relevant ecological, economic and social functions, at local, national and global levels and that does not cause damage to other ecosystems.'

For States who have not adopted the Helsinki resolution, forestry management will be defined as outlined in the document: 'Non-legally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests' - as adopted at the United Nations Conference on Environment and Development, Rio de Janeiro, June 1992.

At the end of a three-year period this Decision will be revised in the light of developments concerning operational guidelines and policies for forest management elaborated in international fora.

Definition of consumption of renewable resources

The raw materials are the vegetable fibres used in the production of tissue/paper, i. e. mainly wood, but other resources, like bamboo, elephant grass and other parts of annual plants grown for the purpose of getting raw materials for tissue/paper production must be included when they are used. If vegetable fibres are used for energy production within the mill, this amount must be included as well.

Excluded from the calculations are materials like:

- waste paper (as defined in point 1.7.),
- wood from thinnings for the purpose of making space for the growing of neighbouring trees or to remove sick or damaged trees,
- wood coming from windfalls, windbroken and broken under the weight of snow,
- wood waste, saw dust and trimmings from saw mills and bark,
- agricultural waste (bagasse, straw etc.). Straw is not agricultural waste if it is grown for the purpose of getting raw materials for paper production.

Calculation of renewable resources

The parameter must be looked upon as a part of the mass balance for production of tissue/paper. The period for the mass balance must be based on one year. One has to measure how much wood or the like is used per tonne of produced tissue/paper product. If the paper mill imports pulp for the production of tissue/paper the supplier has to supply the paper mill with the necessary documentation.

1.2. *Non-renewable resources*

Definition of consumption of non-renewable resources

Only the consumption of fossil fuels related to the manufacturing stages of the life cycle is considered. This includes the consumption of fossil fuels in the production of electricity within the public grid. Three sources of energy are considered: coal, oil and gas.

Calculation of non-renewable resources

The non-renewable resources are considered to be a combination of relative amounts accessible and of different emissions from different sources. They are therefore calculated as TORE (tonne of oil resource equivalents).

The parameter must be looked upon as a part of the mass balance for production of tissue/paper. The period for the mass balance must be based on one year.

$$\text{NRR (TORE/Tonne of paper}^{(1)}) = x \text{ tonnes of oil/tonnes of paper} + 0,11 \times y \text{ (tonnes of coal/tonne of paper)} + 7,3 \times 10^4 \times z \text{ (m}^3 \text{ of gas/tonnes of paper)} + 5,0 \times 10^5 \times v \text{ (kWh/tonne of paper),}$$

where

- x = the number of tonnes of fuel oil used;
- y = the number of tonnes of coal used;
- z = the number m³ of gas used at stp; and
- v = the number of kWh used.

1.3. *Carbon dioxide, CO₂*

Definition of emission of carbon dioxide, CO₂

The emission of CO₂ from fossil fuels and production of electricity originating from the pulp and tissue/paper production must be taken into account, whereas the CO₂ emission from the use of renewable resources is not included. The amount of CO₂ emitted from pulp production as well as from tissue/paper production must be included.

Calculation of carbon dioxide emission, CO₂

CO₂ emissions originate from the non-renewable resources and from the contribution to the CO₂ emissions from the production of electricity outside the plant.

⁽¹⁾ In the formulas the word 'paper' is used for tissue/paper.

The parameter must be looked upon as a part of the mass balance for production of tissue/paper. The period for the mass balance must be based on one year.

$$\text{CO}_2 \text{ (tonnes/tonne of paper)} = 3,00 \times x \text{ (tonnes of oil/tonne of paper)} + 2,50 \times y \text{ (tonnes of coal/tonne of paper)} + 2,22 \times 10^3 \times z \text{ (m}^3 \text{ of gas/tonne of paper)} + 4,4 \times 10^4 \times v \text{ (kWh/tonne of paper),}$$

where

x = the number of tonnes of fuel oil used;

y = the number of tonnes of coal used;

z = the number m³ of gas used at stp;

and v = the number of kWh used.

Testing of carbon dioxide, CO₂

CO₂ is calculated on the basis of a mass balance of the different energy sources used.

1.4. Sulphur, S, sulphur dioxide, SO₂

Definition of emission of sulphur, S, sulphur dioxide, SO₂

The amount of sulphur emitted from pulp production as well as from tissue/paper production must be included, and this figure must be based on measurements on the plants. The contribution from electricity produced outside the plant is the average SO₂ emission from production of the electricity needed. If clean up technology is used the calculation must be based on the emissions after the clean up.

Calculation of sulphur, S, sulphur dioxide emission, SO₂

SO₂ emissions originate from the non-renewable resources and from chemicals. A part of the non-renewable energy is electricity, and when electricity is used the contribution to the SO₂ emissions from the production (of electricity) outside the plant must be taken into account. The formula for SO₂ emission set in the box below only takes the energy-related SO₂ into account.

The parameter must be looked upon as a part of the mass balance for production of tissue/paper. The period for the mass balance must be based on one year.

$$\text{SO}_2 \text{ (kg S/tonne of paper)} = \text{kg S/tonne of paper (measured)} + 1,25 \times 10^3 \times v \text{ (kWh/tonne of paper)}$$

when v = the number of kWh used.

Testing of sulphur, S, sulphur dioxide, SO₂

SO₂ is either calculated on the basis of a mass balance or measured from the chimney in accordance with VDI 2462.

1.5. Organics to water, COD

Definition of organics to water, COD

The parameter COD will be used to describe the pollution of water with organic matter.

Calculation of organics to water, COD

COD is determined on an unfiltered sample. This means that the organic part of the suspended solids is included. The inorganic part is normally considered harmless and will only give rise to local effects depending on the nature of the filter and the recipient. The parameter 'total suspended solids' will therefore not be included. If clean up technology is used the calculation must be based on the emissions after the clean up.

If a public sewage plant is used, the consumed energy as well as emissions originating from the energy must be taken into account in the calculations in the mass balance. The relative contribution in percentage must be used.

The parameter must - as already mentioned - be looked upon as a part of the mass balance for production of tissue/paper. The period for the mass balance must be based on one year.

Testing of organics to water, COD

COD is measured on unfiltered samples in accordance with ISO 6060.

1.6. Chlorinated organics, AOX

Definition of chlorinated organics, AOX

The AOX-parameter is considered as the amount of adsorbable organic halogens that are emitted from the plant. It is a sum that indicates the total amount of substances which adsorb on organic matter (in the method on active carbon), e.g. in waste water chlorinated substances that tend to be adsorbed to the sludge in the sewage works. Chlorinated organics are determined as kg AOX/tonne of tissue/paper.

Calculation of chlorinated organics

If clean up technology is used the calculation must be based on the emissions after the clean up. If the emissions of polluted water go to a public cleaning up plant, the calculation must be based on the actual cleaning percentage at the specific plant.

The parameter must be looked upon as a part of the mass balance for production of tissue/paper. The period for the mass balance must be based on one year.

Testing of chlorinated organics, AOX

AOX is measured in accordance with ISO 9562.

1.7. Waste

Definition of waste (positive and negative)

Waste includes all solid waste that has to be disposed of. This means that sludge from waste water treatment and ash from combustion must be included. If waste water is treated at a public plant, the emissions from the public plant must be the emissions used in the calculations.

Calculation of waste

The relative contribution from tissue/paper production must be calculated and on the basis of that result the amount of waste should be calculated.

If the public plant is an incineration station, the emissions to air must be taken into account as well. The relative amount of waste from the incineration plant, e.g. ash must be taken into account.

The use of recycled fibres is considered 'removal of waste'. Therefore, the amount of recycled fibres used for production of 1 tonne of tissue/paper must be subtracted from the amount of waste generated during production.

The parameter must be looked upon as a part of the mass balance for production of tissue/paper. The period for the mass balance must be based on one year.

Waste paper

Used paper is that which was produced in a previous production process and has been used, or is assumed to have been used, for its intended purpose.

Where such paper is collected in an unseparated manner and then sorted for use as pulp, it may be referred to as 'recycled fibre', whilst that destined for energy generation or for disposal will be referred to as 'waste paper'.

2. Inspection and calculation

2.1. *Choice of analytical laboratory*

Analysis of chemicals and emissions shall be carried out by laboratories nominated by the competent body or which are accredited in accordance with the requirements in EN 45001 or its equivalent.

Alternatively, institutions which are registered in accordance with ISO 9001 or 9002 may be used.

2.2. *Calculation of emission values*

For each of the parameters the load point should be calculated according to the relevant paragraphs in this appendix and the relevant criteria document.

If the paper mill imports the pulp for production of tissue/paper the suppliers of the pulp must supply the tissue/paper producer with the relevant documentation giving relevant data for emissions and resource consumption for the pulp. Suppliers of pulp, even placed outside the European Community, must be open for third party inspection. The total result shall be based on the calculated parameters for both the paper mill and if relevant from the pulp production. The total result will - by the use of the table in the criteria Annex - give the total load points.

In the case of an importer applying for the eco-label the manufacturer as well as the supplier must provide the importer with the relevant documentation giving relevant data for emissions and resource consumption for the pulp. The results have to be compared in the table in the criteria Annex and that will lead to the results in load points.

If the mill produces different products the total emissions from the mill for each of the parameters must be calculated according to the size of the specific production over the same periods as mentioned for calculation of mass balance for each of the parameters.

If the manufacturing or semi-manufacturing result in emissions or waste and use of resources to public plants, the emissions from the plants must be taken into account relating to the calculation.

2.3. *Test periods and frequency*

For samplings and measures the test frequency must be high enough so as to ensure that the product is in accordance with the criteria set up in the relevant criteria documents.

2.4. *Forest management*

In submitting an application, any applicant for a product which contains virgin pulp must provide a declaration that such pulp has been sourced from managed forests, in accordance with the definition contained in this Appendix.