



**Österreichisches
Umweltzeichen**

Eco-label 24

Printed products

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Introduction

Printed products made of recycled or chlorine free paper, produced subject to qualitative and quantitative restrictions on the use of solvents and printing inks, and types of binding and product refinement which enable optimal utilisation create the conditions required for resource conservation and a considerable reduction in health and environmental risks.

The present Guideline applies to products of offset printing and digital printing solutions.

Editors, publishers and other persons commissioning printed products as well as printing companies and bookbinderies can use the Eco-label for their products.

1 Definition of the product groups

For the purposes of this Guideline products eligible for labelling include paper print products manufactured using offset printing, ink jet printing, and electrophotographic digital printing technology.

Packaging shall be excluded from the scope of the Eco-label award.

To optimise the use of recycled and primary fibre paper, different categories of requirements have been established.

1.1 Higher requirements

- Permanence according to ISO 9706 [1]
- Maintenance of the usability of the product

For these products, the use of papers with an optional percentage of secondary fibres is permitted. The use of papers bearing the Austrian Eco-label¹ or papers meeting the requirements under Annex 1 is permitted.

1.2 Less stringent requirements

- No or less stringent requirements on permanence
- No or less stringent requirements on the maintenance of the product's usability

For these products, the use of papers with an obligatory percentage of recycled material is mandatory. The use of papers which bear the Austrian Eco-label or meet the requirements specified in Annex 1 is permitted.

1.3 Products and their classification

An expert is responsible for the below-mentioned, exemplary products to the relevant *requirement category* (see items 1.1 and 1.2).

- Books
- Printed periodicals (e.g. magazines, journals)
- Brochures
- Address books
- Mercantile printed matter (e.g. forms, invoice pads)

For the following products, exclusively papers with an obligatory percentage of recycled material may be used:

- Telephone directories
- Newspapers²
- Advertising printed matter

¹ according to UZ 02 "Grafisches Papier" (Eco-label 02 "Graphic paper")

² Products identified in the press manual of Austrian newspaper publishers and newspaper editors as daily or weekly paper

For products falling exclusively within the sphere of competence of Eco-label Guideline “Products from recycling paper” exclusively the use of papers with 100 % share of recycling fibres is permissible.

- Calendars
- Envelopes
- *Writing pads (spiral-bound, glued together, wire-stitched)*
- Note pads (loose, glued, sticky notes)

2 Health and environmental criteria

2.1 General regulations for raw materials, auxiliary materials and feedstocks

The inspection body in charge of verification shall be notified of all materials and mixtures used for the manufacturing of the products.

Updated safety data sheets as specified in the REACH Regulation [2] shall be attached to the expert opinion in German or English language.

Substances that are assigned any of the following R phrases according to the Dangerous Substances Regulation [3] or H phrases according to the CLP Regulation [4], may be used at a maximum in the concentrations given in Table 1.

Table 1: Characteristics for classification and limit values

Annex VI to the Substances Directive	CLP Regulation	Limit value in mass % *
Very toxic R26, R27, R28 R39/26, R39/27, R39/28	H300, H310, H330 H370	0.1
Toxic R23, R24, R25 R39/23, R39/24, R39/25 R48/23, R48/24, R48/25	H301, H331, H311 H370 H372	0.1
Carcinogenic	Carcinogenicity	
Cat. 1, 2: R45, R49	Cat. 1A, 1B: H350, H350i	0.1
Cat. 3: R40	Cat. 2: H351	1.0
Mutagenic	Germ cell mutagenicity	
Cat. 1, 2: R46	Cat. 1A, 1B: H340	0.1
Cat. 3: R68	Cat. 2: H341	1.0
Toxic to reproduction	Reproductive toxicity	
Cat. 1, 2: R60, R61	Cat. 1A, 1B: H360F, H360D, H360FD, H360Fd, H360Df	0.1
Cat. 3: R62, R63	Cat. 2: H361f, H361d, H361fd	1.0
Addition lactation: R64	Toxic for reproduction on or via lactation: H362	1.0
Dangerous for the environment	Environmental hazards	
R50	Acute aquatic hazard: H400	1.0
R50/53	Chronic (long term) aquatic hazard Cat. 1:	1.0

Annex VI to the Substances Directive	CLP Regulation	Limit value in mass % *
	H410	
R51/53	Cat. 2: H411	1.0
R59	hazardous to the ozone layer: EUH 059.	0.1
Substances which, according to Article 59 of the REACH Regulation, have been placed on what is known as the candidate list. The version of the list of candidates up to date at the time of application shall apply. [5]		0.1
Substances meeting the criteria for PBT (persistent, bioaccumulative and toxic) or vPvB (very persistent and very bioaccumulative) (REACH, Annex XIII)		0.1
Substances which, according to the (Austrian) Ordinance on Occupational Exposure Limits ('Grenzwerteverordnung') [6], are clearly identified as carcinogenic agents (Annex III – A1 and A2) and classified as carcinogenic substance groups or compounds (Annex III – C).		0.1
Substances which, according to the (Austrian) Ordinance on Occupational Exposure Limits ('Grenzwerteverordnung') are classified as reasonably suspected of having carcinogenic potential (Annex III –B).		1,0
* The maximum quantities that may be used depend on the concentrations as from which the substances have to be mentioned in the safety data sheet. In cases where a specific limit value for the concentration has been laid down in the CLP Regulation, the lower value shall be used as the limit value. Substances classified as "dangerous for the environment" shall be exempted from this provision; they shall be subject to the limit values given in the table.		

Phthalates that at the time of application are classified with risk phrases H360F, H360D, H361f in accordance with Regulation (EC) No 1272/2008 must not be added to printing inks, inks, toners adhesives and cleaning agents.

Where available and technically reasonable the substances used in production (e.g. solvents, printing inks) shall be purchased in refillable and reusable packages.

2.1.1 Specific rules on toners and inks

For toners, a proof of the negative AMES test result shall be provided.

The toners and inks used shall be deinkable. The deinkability has to be proved by means of the "deinkability scoreboard" [7] of the European Recovered Paper Council. Toners and/or inks, printing machines and paper grades that are subject to the proof of deinkability must be defined in detail.

Toner and inks must not contain any substances containing antimony³, arsenic, selenium, mercury, lead, cadmium or chromium VI compounds as constituting components. Toners must not contain any azo colorants (dyes or colour pigments) that may release the amines indicated in Annex 2 and are detectable by means of the procedures described in that Annex.

Toner and inks and/or module shall be designed in a way enabling reuse or material recycling.

Instructions for safe use of toner and ink modules shall be provided.

³ Except for non-bioavailable pigments, where antimony is part of the crystal lattice and of derivatives which are neither classified or identified as very toxic (T+) nor as toxic.

2.2 Processing of the products

2.2.1 Printing method

Printing methods permitted for manufacturing the products listed in Item 1:

- Sheet offset printing
- Web offset printing, coldset
- Web offset printing, heatset
- “Digital offset printing”
- Electrophotographic digital printing
- Inkjet

2.2.2 Production of master copies and printing plates

For the production of master copies only filmless methods may be applied. Resulting developer and fixer liquids shall be recycled.

2.2.3 Printing inks

The below-mentioned requirements shall be met and refer to ready-to-use printing ink. No additives may be added subsequently.

2.2.3.1 UV curing printing inks

UV-curing printing inks are permitted subject to the following conditions:

- A suction system for the printing machines using UV-curing printing inks is used
- The deinkability of printed products using UV-curing printing inks has to be proved by means of the “Deinkability Scoreboard” [7] of the European Recovered Paper Council. UV printing inks, printing machines and paper grades that are subject to the proof of deinkability shall be defined in detail.

2.2.3.2 Pigments:

- Pigments containing antimony³, arsenic, selenium, mercury, lead, cadmium or chromium VI compounds as constituting containing components are excluded from use.
- The use of pigments which may release the amines listed in Annex 2 as a consequence of the breakdown of one or more azo groups is not permitted. Pigments in which, following the procedure of the method indicated in Annex 2, none of the amines listed can be detected due to the breakdown of one or several azo groups are exempt from this provision.
- The use of pigments which were synthesised using halogenated organic compounds is not permitted. For yellow and green pigments, this requirement shall be met subject to technical alternatives.

2.2.3.3 Siccatives:

The below-mentioned heavy metals are subject to the following limits (in terms of the ready-to-use colour blend):

Co: < 0.1 % by weight
Mn: < 0.5 % by weight

2.2.4 Cleaning of offset printing machines

The use of halogenated organic solvents is not permitted.

From 1 January 2014 Eco-label printing products must be exclusively printed on offset printing machines which are equipped with an automatic purification device.

The following cleaning agents must not be applied for the continuous use of offset printing machines with automatic washing systems (printing blankets, rollers).

1. Cleaning agents of vegetable origin (vegetable oils and their esters) which comply with the following criteria:

Boiling point: > 200°C
Flash point: > 150°C
Steam pressure: < 0.1 mbar (= 10 Pa = 0.1 HPa = 0.01kPa)
Hydrocarbon content: not detectable (GC-MS)
Terpenes: not detectable (GC-MS)
Additives: Declared by CAS number;
aromatic amides or amides must not be contained

or

2. Mixtures of vegetable oils and/or their esters and white spirit
Flash point > 100 ° C

or

3. hydrocarbon based and/or water-based, slow-evaporating washing and cleaning agents ("high-boilers"): Flash point > 100 ° C

or

4. White spirits of the hazard class AIII:
Flash point 55°C - 100°C

Cleaning agents according to 2, 3, and 4 must meet the following requirements:

Benzene content: < 0.1 %
Toluol and xylol content: < 1 %
Aromatics content (> C9): < 1%
Substances which must not be contained:
halogenated hydrocarbons
terpene
N-hexane
Secondary amines and amides

Up to 30 June 2014 it will be evaluated whether the exclusive use of low-VOC detergents in cleaning machines can be implemented in a practice-oriented way. In the case of a positive result only detergents with a flash point > 100°C according to the categories 1, 2, and 3 may be used for the continuous cleaning of offset printing machines with automatic washing machines (printing blankets rolls) any more. In this case Guideline Eco-label UZ 24 "printed products" will be published anew with these changed requirements as of 1 January 2015.

For the occasional manual cleaning of offset printing machines (such as for example desmoothing, regenerating of printing blankets, removal of colour residues, paper coating and for residues of dampening solutions or the removal of colour residues or ink build-up on parts of the machines the above-mentioned detergents may be used according to the requirements (for 2, 3, and 4) according to the requirements defined there. Moreover low-VOC⁴ detergents such as cleaning pastes or acid/alkaline water-based cleaning agents must be used.

Recycling:

Largely separate collection of waste water and organic solvents. The cleaning agents used shall be recovered taking account of the relevant technical and economic possibilities.

Cleaning cloths for manual cleaning:

Solely reusable cleaning cloths must be used; they shall be recovered by a cleaning company.

2.2.5 Dampening solution

The share of isopropyl in the dampening solution must not exceed 7 % for printing products which are produced until 31 December 2013 and as of 1 January 2014 6 vol. % . .

To check compliance with this requirement the expert, in the course of the inspection, shall take a sample from the equipment used to prepare the dampening solution of the printing machines on which products are manufactured in accordance with the present Guideline. The isopropyl content of the sample shall be checked on the spot or at an appropriately equipped laboratory using gas chromatography, infrared or ultrasonic measurement with a suitable measuring device. Continuous compliance with the required limit can be verified by way of sampling tests.⁵

The use of dampening additives, which, according to the list, or by self-assessment pursuant to the Administrative Regulation on Substances Hazardous to Water [8] ('Verwaltungsvorschrift wassergefährdende Stoffe'), fall in water hazard class 2 or 3, is prohibited.

⁴ 'VOC' (Volatile Organic Compounds) are 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.

⁵ see Annex 3

2.2.6 Binding methods

The type of binding shall be adjusted to fit the relevant product and its designated use (strain, lifetime).

Sewn binding and wire stitching shall be given priority over adhesive binding.

2.2.6.1 Stitching, wire comb binding

The steel used for stitching must be cadmium-free. Any plastics/ plastic coatings shall be free from halogenated organic compounds.

2.2.6.2 Adhesive binding

The following are permitted:

- Water-based dispersion adhesives
- Thermoplastic hot-melt adhesives – requirements:
 - ⇒ Compliance with the processing temperature of the adhesive specified in the safety data sheet and/or product data sheet
 - ⇒ Gluing machine with integrated overheat protection
 - ⇒ Air extraction at the workplace
- Polyurathane (PUR)-based hot-melt adhesives –requirements:
 - ⇒ Use of low-emission PUR adhesives with less than 0.1 % monomeric isocyanates MDI
 - ⇒ Compliance with point 5.3 of the concept of protective measures of the German Cooperative Institute for Occupational Safety (Berufsgenossenschaftliches Institut für Arbeitsschutz) BGIA on the use of reactive PUR hot-melt adhesives for the processing of wood, paper and leather (see Annex 4)

Hot-melt adhesives may only be used if it can be proved that they can be removed according to the Scorecard for the Removability of Adhesive Applications of the European Recovered Paper Council [9]. They may only be used in the applications form (e.g. layer thickness) for which the recyclability according to the above-mentioned scoreboard has been confirmed.

2.2.7 Print finishing, lamination

Mechanical refinement processes such as imprinting and punching are permissible.

For books⁶ linen or paper covers and lamination made of polyethylene/polypropylene and/or renewable raw materials are permissible. Moreover, hot foil stamping is permissible for hard covers.

Print coating may be applied where this is necessary to maintain usability (protective effect). UV coating is not permitted.

⁶ Books are yarn-bound or glue bound printed paper products such as school books, fiction or non-fiction books, handbooks and paperbacks. Not included in the concept of books are journals, brochures, magazines, catalogues and annual reports.

By means of appropriate control procedures or a declaration of a wastepaper processing enterprise or a comparable institution it has to be proved that the components which don't consist of paper are easily removable in the course of the wastepaper processing procedure and do not impair the recycling process.

2.3 Production

The production site is defined as the place where the major part of production takes place.

- Official requirements and legal provisions, in particular concerning air, water, waste, environmental information and employee protection, are to be complied with.

Both for domestic production sites and for production sites abroad the relevant national provisions must be met.

In cases where EU provisions are more stringent than national provisions, such EU provisions shall be complied with in any event.

The applicant shall confirm compliance with this requirement.

- A waste management plan (WMP) is to be presented.
It has to contain the items listed in the Decree of the Austrian Federal Ministry of Environment, Youth and Family - BMUJF (now Federal Ministry of Agriculture, Forestry, Environment and Water Management - BMLFUW) [10] on the completeness of company-level waste management plans.

For production sites registered in accordance with the EMAS Ordinance [11] or certified in accordance with the Austrian standard ÖNORM EN ISO 14001 [12] the above-mentioned requirements shall be deemed to be met.

In the case of web offset / heatset printing also a catalytic post-combustion or thermal post-combustion with use of waste heat for energy generation is mandatory.

2.3.1 Energy

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

2.3.2 Emission of volatile organic compounds VOC

The annual total amount of VOC in kilogramme, which is contained in the chemicals required for the total annual production of printing products (P_{VOC}), as well as the amount of VOC, which is eliminated, recovered from the printing process and sold or reused (R_{VOC}) shall be recorded.

The above-mentioned quantities shall be put into relation with the annual overall quantity of paper in tonnes, which is bought for the production of printing products (P_{PAPER}) according to the following formula.

$$(P_{VOC} - R_{VOC}) / P_{Paper}$$

2.3.3 Wastepaper and waste

The ratio between the annual overall quantity of wastepaper in tonnes, which is generated in the course of printing, finishing and binding of the printed products awarded with the Eco-label and the overall quantity of waste paper which is bought and used for the production of printed products which are awarded with the Eco-label is to be presented.

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 calculation⁷.

Where the finishing or the binding processes are outsourced to another company, the amount of waste paper resulting from the outsourced work shall be identified and included in the calculation.

2.4 Management

2.4.1 Eco-label agent

At the printing house /bookbindery a staff member shall be appointed as Eco-label agent and it shall be announced who is the person responsible for the implementation of the requirements of this Eco-label Guideline. This includes in particular quality-assurance measures for the implementation of tasks which are awarded with the Austrian Eco-label and the respective training of staff members.

2.4.2 Staff training

All staff members working in the field of production must be imparted the knowledge necessary for the compliance with the requirements of the Eco-label and for the implementation of permanent improvements. The training measures shall be described and it shall be indicated who of the staff members has attended when which training course. A sample of the training documents shall be added to the expert opinion.

2.5 Packaging

The principle is to act on minimising packaging as far as possible.

Materials permitted for sales packaging include papers, cardboards and/or paperboards as well as polyolefin foils; the use of composite materials is prohibited.

Individual packaging, also for dispatch, is not permitted, except if the product would verifiably lose quality or verifiably requires individual packaging for technical reasons of dispatch.

Any plastics used shall be free from halogenated organic compounds.

Those putting packaging in circulation shall either take such packaging back themselves and utilise it or verifiably take part in a collection and recovery system.

The provisions of the Austrian Packaging Ordinance shall apply [13].

⁷ It shall apply from 1 January 2015

3 Fitness for use

Hardcover products must satisfy the following requirement:

- Pull test: ≥ 7.2 N/cm
- Products specified in item 1.1 also have to be smear resistant and scrub resistant.

4 Declaration

The Eco-label logo shall be applied on the printing product in such a way that misleading confusion and/or content-related associations with companies, products and services mentioned or shown on the printed product are excluded.

The application of the Eco-label shall only be permitted in connection with the wording of the Guideline, the company name of the licensee and the Eco-label licence number.



printed according to the Guideline "Printed products" of the Austrian Eco-label, company name, licensee, Eco-label No. XXX

On printed advertising material not exclusively distributed according to demand⁸ the following information shall appear in addition to the requested requirements on declaration in a way to be clearly legible:

Information on how to cancel undesired advertising material is available at

www.umweltberatung.at/werbung

5 Utilisation of the label /licensee

The Eco-label can be applied for and used as Eco-label licensee by the following legal entities:

- Printing house
- Bookbindery
- Finishing companies
- Publishers
- Editors

⁸ Examples of non-demand oriented distribution:
Mailing of advertising printed material without personal address ("to a household")
Mailing of advertising printed material by a distributor of advertising material

5.1 Application for and verification of predefined products (concerns editors, publishers, persons commissioning printed products)

The application can be filed for products which are predefined by a title (e.g. periodicals, telephone directories). The inspection shall cover products bearing the title(s) for which the application was filed and their production process. If the products bearing the title applied for and their production processes meet all criteria of the Guideline, the label may be used for exactly these product titles.

5.2 Application for and verification of non-predefined products (concerns printing companies, book binderies)

The application can be filed for products which are not predefined by a title. The expert evaluation shall be carried out in a way ensuring that defined raw materials (paper grade(s), printing inks, tools etc.) and processes (manufacturing of master copies, printing, binding etc.) which are to be used or applied are examined. If, at a later time, further printed products are manufactured which in terms of raw materials use and process correspond exactly to the audited process, the applicant has the right to use the Eco-label for these product titles. The applicant undertakes to use the label exclusively for exactly such product titles and to keep records on their production which shall contain the following information:

- Paper grade
- Equipment used for or company charged with the production of master copies and printing plates
- Printing company and printing machine on which the printing was carried out
- Binding (bookbinder)

If parts of the production, such as binding or finishing are not carried out by the Eco-label licensee these steps of production shall be certified with the commissioned company (ies) as well. Moreover an agreement shall be concluded between the Eco-label licensee and the commissioned enterprise, which lays down that exclusively certified equipment and packaging material may be used for the production of Eco-label printed products.

From 1 January 2015 onwards the Eco-label may only be used on printed products if all steps of processing (e.g bookbinding, finishing) have been carried out by Eco-label licensees.

The records shall be submitted once per year.

ANNEX 1

Requirements on the paper grades used

The paper grades used shall meet the criteria of one of the below-mentioned national or European Eco-labels.

- Austrian Eco-label [14]
- German Eco-Label – “Blue Angel” [15]
- Nordic Ecolabel – “Nordic Swan” [16]
For products under item 1.2, proof of the required share of secondary fibres shall be provided.
- European Ecolabel – “(EU Ecolabel) [17]
For products under item 1.2, proof of the required share of secondary fibres shall be provided.

If the paper grades used have not been awarded at least one of the above-mentioned Eco-labels, proof of compliance with the following requirements shall be furnished.

The weighted number of scores of the paper grades used, calculated according to Table 2, must not exceed 100, with the individual emission data having to be below the given limits. There must be a certified environmental management system and a chain of custody certification of the paper factory producing the respective paper grade.

The parameters of Table 2 are part of a uniform product declaration of the international paper industry and are published by several paper manufacturers in the form of paper profiles [18]. This declaration shall be added to the expert opinion. Reference and limit values, their weighting and the calculation of the points are explained in the publication “Vorschlag von Grenzwerten für die Mustermappe Ökologische Druckpapiere” („Proposal for threshold values for the sample folder Ecological Printing Papers“) [19]. For papers which are part of the sample folder Ecological Printing Papers” [20], this requirement is deemed to be met. For products under item 1.2 and/or 1.3, proof of the percentage of secondary fibres contained shall be provided.

Table 2: Paper assessment

CALCULATION				
Parameter	Limit value	Reference value	Weighting	Calculation of points
COD	≤ 37,5kg/t	25 kg/t	10 %	$PCSB = 10 \times (CSB_{\text{Papier}}/CSB_{\text{Referenz}})$
AOX	≤ 0,17 kg/t	0,07 kg/t	20 %	$PAOX = 20 \times (AOX_{\text{Papier}}/AOX_{\text{Referenz}})$
SO ₂	≤ 1,35kg/t	0,9 kg/t	10%	$PSO2 = 10 \times (SO2_{\text{Papier}}/ SO2_{\text{Referenz}})$
NOx:	≤ 3,45 kg/t	2,3 kg/t	10 %	$PNOx = 10 \times (NOx_{\text{Papier}}/NOx_{\text{Referenz}})$
CO ₂ fossil	≤ 1100 kg/t	733 kg/t	40 %	$PCO2 = 40 \times (CO2_{\text{fossil paper}}/CO2_{\text{fossil referenz}})$
Wood CERT	≥ 50 %	-	10 %	$P_{\text{FIBRECert/Rec}} = 10 * (2 * (100 - \%_{\text{FIBRECert/Rec}}/100))$
Points				$PTOTAL = PCSB + PSO2 + PAOX + PNOx + PCO2 + PWOOD$
EVALUATION				
NUMBER OF POINTS			PTOTAL ≤ 100	
Environmental management system			must be available	
CoC certification sustainable forestry (except for paper grades from 100 % recycling fibres)			must be available	

ANNEX 2 Pigments

The following aromatic amines shall not be generated as a result of reductive cleavage of the azo group(s) contained in the pigment and/or must not be detected in the procedures of the indicated methods.

Methods:

Test methods according to the Austrian Industrial Standards ÖNORM EN 14362-1 [21] and ÖNORM EN 14362-3 [22]

If these methods are not deemed a validated method of analysis for a printing substrate according to the present Guideline, the use of the prohibited azo pigments shall not be deemed established for amounts not exceeding 30 mg per amino component in one kilogramme of sample material.

4-Aminobiphenyl	00092-67-1
Benzidine	00092-87-5
4-Chloro-o-toluidine	00095-69-2
2-Naphthylamine	00091-59-8
o-Aminoazotoluene	00097-56-3
2-Amino-4-nitro-toluene	00099-55-8
p-Chloroaniline	00106-47-8
2,4-Diaminoanisole	00615-05-4
4,4'-Diaminodiphenylmethane	00101-77-9
3,3'-Dichlorobenzidine	00091-94-1
3,3'-Dimethoxy-benzidine	00119-90-4
3,3'-Dimethyl-benzidine	00119-93-7
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	00838-88-0
p-cresidine	00120-71-8
4,4'-Methylene-bis(2-chloroaniline)	00101-14-4
4,4'-Oxydianiline	00101-80-4
4,4'-Thiodianiline	00139-65-1
o-Toluidine	00095-53-4
2,4-Toluylenediamine	00095-80-7
2,4,5-Trimethylaniline	00137-17-7
4-Aminoazobenzene	00060-09-3
o-Anisidine, 2-Methoxyaniline	00090-04-0

ANNEX 3

Isopropanol in dampening solutions

To ensure compliance with the requirements on the isopropanol content, dosing installations which are not based on infrared or ultrasonic measurements, for example installations measuring the density of the dampening preparation, should be calibrated in accordance with the measurement results of the expert evaluation.

The following procedures have been provided for verifying compliance with the requirements on isopropanol in dampening solutions:

Self-monitoring

Dosing by means of online measurement

If the relevant printing machines are equipped with online measuring instruments based on infrared or ultrasonic measurement, continuous verification is guaranteed.

Dosing by means of other measuring instruments (e.g. installations based on the density of the dampening preparation)

- In-company sampling during a printing process
- Definition of the paper and the colorants used in the print job concerned
- Delivery of the sample to a test laboratory as specified in point 2.2.5
- Results shall be supplied in the framework of the annual renewal of the contract.

External control

- Sampling as described above by external persons during an unannounced visit of the enterprise (e.g. in the framework of market controls) in the course of a printing process
- Definition of the paper and the colorants used in the print job concerned
- Delivery of the sample to a test laboratory as specified in point 2.2.5

Sampling

The sample shall be taken from the installation for the preparation of the dampening solution. For the delivery of the sample to a test laboratory, the extracted dampening solution shall be filled into a plastic bottle (volume at least 0.25 litres); the bottle shall be sealed. The measurement of the isopropanol content does not require sample preparation.

ANNEX 4

Concept of the German Cooperative Institute for Occupational Safety (BGIA Berufsgenossenschaftliches Institut für Arbeitsschutz BGIA) on the use of reactive PUR-based hot-melt adhesives for the processing of wood, paper and leather

Minimum measures for all application methods

The following protective measures must be taken for all procurement procedures and activities with reactive PUR-based hot-melt adhesives.

- As far as the ventilation of the working rooms is concerned at least the requirements according to the Guideline for Workplaces (Arbeitsstätten-Richtlinie) ASR 5 "Ventilation"(Lüftung) and VDI 2262 "Air Quality at the workplace" (Luftbeschaffenheit am Arbeitsplatz) must be complied with. This concerns in particular appropriate fresh air ventilation as a compensation for the vacuumed-off air as well as its humidification.
- For the processing of reactive PUR hot-melt adhesives only appropriate premelting and application systems may be used. Overheatings of the reactive PUR hot-melt adhesive above 150° to a maximum of 170° must be technically prevented, e.g. by means of temperature control with separate threshold temperature monitoring for all heated establishments. The paper grades used shall meet the criteria of one of the below-mentioned national or European Eco-labels.
- Premelting tools and application systems must be designed in such a way that no health-damaging vapours can exhaust in the course of their operation (gastight heating of hot-melt adhesive, capture of possible vapours by means of a, to a large extent, closed construction, suction with at least 300 m³/h at the application system).

See DIN EN 1010-4 "Safety of machinery, safety requirements for the design and construction of printing and paper converting machines, part 4: Bookbinding, paper converting and paper finishing machines".

- Contact with skin must be avoided for example when unpacking the reactive PUR hot-melting adhesive, cleaning or handling the fresh products manually. The use of appropriate working gloves, e.g. coated cotton gloves, is required.
- When refilling the reactive PUR hot-melt adhesive and during cleaning work thermally resistant working gloves, e.g. leather gloves must be worn. In case of risk that the hot-melt adhesive splashes around protective goggles must be used.
- At the end of the work and before breaks the hands must be cleaned properly. Sufficient skin care shall be provided for. In the case of pre-injured or pathologically changed skin a doctor should be consulted:

See vocational cooperative rule "Use of skin protection" [BGR (occupational cooperative rule 197)]

- Clothes which have been polluted by PUR hot-melt adhesive must be immediately changed.
- Eating, drinking and smoking is prohibited in the whole working area.

In order to sustainably ensure the safe use of PUR hot-melt adhesives the following organisational measures must be taken:

- All protective facilities on the application system must, as a rule, be checked daily for their completeness and their functionality.

- As suction pipes and ventilators may be contaminated their regular cleaning must be provided for. All suctions must be checked at least once per year for their functionality, complete coverage and efficiency. This could take place, for example, by means of a check with ventilation smoke tubes.
- Temperature control with separate threshold temperature monitoring at the premelting tool and at the application system must, as a rule, be checked daily for their functionality.
- The processing temperatures indicated by the adhesive producer must be checked in the course of a change of the adhesive and checked daily for their setting.

6 Other applicable standards, acts and other regulations

The documents referred to hereinafter contain provisions which are part of this Eco-label Guideline. Legal provisions shall always be applied as amended. Dated references of other documents do not cover later modifications or revisions of the publication.

In the case of undated references the most recent version of the referenced document shall apply.

Austrian Acts can be consulted officially at <http://www.ris.bka.gv.at>⁹

The current versions of European Union Regulations and Directives are electronically retrievable at:

<http://eur-lex.europa.eu/de/index.htm>

- [1] ÖNORM EN ISO 9706; Information and documentation – Paper für documents Requirements for permanence, 1998-09-01
- [2] Regulation (EC) No 1907/2006 of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive No 1999/45/EC and repealing Council Directive (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive No 76/769/EEC and Commission Directives No 91/155/EEC, No 93/67/EEC, No 93/105/EC and No2000/21/EC, Article 31 and Annex II;
Amendment 552/2009 Federal Law Gazette II 158/2005 II 158/2005
- [3] Council Directive No 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 and its adaptations to technical progress.
- [4] Regulation (EC) No 1272/2008 of the European Parliament and the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives No 67/548/EEC and No 1999/45/EC, and amending Regulation (EC) No 1907/2006
- [5] The current list of candidate substances is available at:
http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp
- [6] Federal Law Gazette II No. 429/2011 Ordinance on Occupational Exposure Limits (Grenzwertverordnung 2011 GKV 2011) of 20 December 2011

⁹ No liability is accepted for the correctness and completeness of the legal information system. Exclusively the wording of the legal provisions announced in the Federal or Provincial Law Gazettes or in other publication instruments shall be decisive.

- [7] Assessment of Print Product Recyclability — Deinkability Score — User’s Manual, www.paperrecovery.org, „Publications“
- [8] The “VwVwS – “Verwaltungsvorschrift wassergefährdende Stoffe” (Administrative Regulation on Substances Hazardous to Water) was published on 29 May 1999 in the German “Bundesanzeiger” 98a.
- [9] Assessment of Print Product Recyclability, Scorecard for the Removability of Adhesive Applications, Mai 2011 www.paperforrecycling.eu
- [10] (Federal Ministry for Environment, Youth and Family Affairs now Federal Ministry of Agriculture, Forestry, Environment and Water Management): “Erlass zum Abfallwirtschaftsgesetz und seinen Verordnungen” (Decree on the Waste Management Act and its ordinances) of 16 August 1995 (ref. no. 47 3504/404-III/9/95)
Leitfaden zum Abfallwirtschaftskonzept (Guideline on the Waste Management Plan)
<http://www.lebensministerium.at/umwelt>
- [11] Regulation (EC) No 1221/2009 of the European Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community Eco-management and Audit Scheme (EMAS)
Official Journal No L 342 of 22 December 2009 p. 0001-00045
- [12] ÖNORM EN ISO 14001; Umweltmanagementsysteme - Anforderungen mit Anleitung zur Anwendung, (Environmental management systems –requirements with instructions for implementation) 15 August 2009
- [13] Austrian Federal Law Gazette No 648/1996, “Verpackungsverordnung” (Austrian Packaging Ordinance), 29 November 1996
- [14] Basis for the award of the Eco-label
Guidelines for the award of the Austrian Eco-label
UZ 02 „Grafisches Papier“ (Eco-label 02 “Graphic paper”)
- [15] Basis for the award of the Eco-label
Recyclingpapier RAL-UZ14 (Recycling paper RAL Eco-label 14)
Newsprint paper for the most part made of waste-paper and chlorine-free
RAL-UZ 72 (RAL Eco-label 72)
- [16] Nordic Ecolabelling, Ecolabelling of Printing Paper, Criteria Document
- [17] 2011/332/EU Commission Decision of 7 June 2011 on establishing the ecological criteria for the award of the EU Ecolabel for copying or graphic paper
Official Journal No L 149 of 8 June 2011 p. 12-14
and/or
2012/448/EU: Commission Decision of 12 July 2012 on establishing the ecological criteria for the award of the EU Ecolabel for newsprint paper, Journal No. L 202 of 28 July 2012, p. 26-37.

- [18] see www.paperprofile.com
- [19] Proposal of limit values for the sample folder ecological printing papers
ÖKO.KAUF-Wien AG Druck, Papier und Büromaterial, September 2002,
updating 2011
- [20] Sample folder, Ecological Printing Papers, printing, office digital printing papers
and roll, ÖKO-KAUF Wien, AG Druck, Papier & Büromaterial, respective
updated version
- [21] ÖNORM EN 14362-1, Textiles - Methods for determination of certain aromatic
amines derived from azo colorants - Part 1: Detection of the use of certain azo
colorants accessible with and without extracting the fibres, 2012-04-01
- [22] ÖNORM EN 14362-3, Textiles – Methods for determination of certain aromatic
amines derived from azo colorants – Part 3: Detection of the use of certain azo
colorants which may release 4-aminoazobenzene, 2012-08-15
- [23] Federal Law Gazette II 320/2004 Azo-colorants Ordinance of 4 August 2004