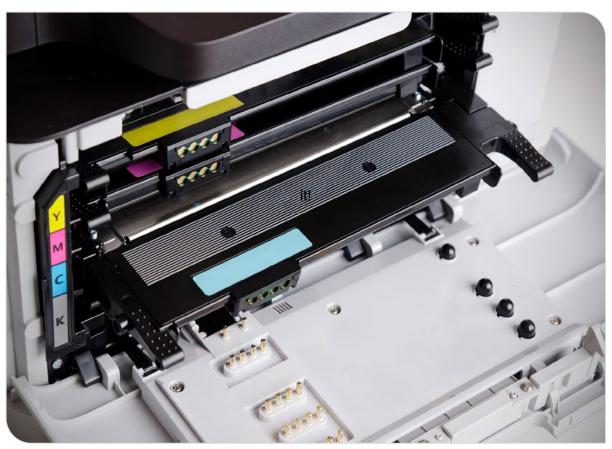
# Nordic Swan Ecolabelling for

# **Refurbished OEM Toner and Ink Cartridges**



Version 6.0 • 30 September 2025 – 30 September 2030



# **Contents**

1 To		vironmental communication guideline for Nordic Swan Ecolabel Refurbished  Ink Cartridges	
2	Wh	nat can carry the Nordic Swan Ecolabel?	4
3	Ho	w to read this criteria document	4
4	Re	quirements	5
	4.1	Definitions	5
	4.2	Description of the product	6
	4.3	Toner powder and ink	6
	4.4	Quality1	1
	4.5	Reuse and take-back system1	5
	4.6	Packaging1	6
	4.7	Customer information	6
	4.8	Working environment and legislation1	7
	4.9	Licence maintenance1	7
5	Cri	teria version history1	8
6	Ho	w to apply and regulations for the Nordic Ecolabelling1	8
ΑĮ	ppendix	c 1 Laboratories for testing, sampling and analysis	
ΑĮ	ppendix	Declaration from the applicant: Toner powder/ink	
ΑĮ	ppendix	OBC Declaration from manufacturer/supplier of toner powder or ink	
	ppendix sting	Declaration from the applicant: Toner cartridges - Print quality and ca	apacity
	ppendix sting	Declaration from the applicant: Ink cartridges - Print quality and capa	icity
ΑĮ	ppendix	C 6 Declaration from the applicant: Legislation and labour conventions	

008 Refurbished OEM Toner and Ink Cartridges, version 6.0, 30 September 2025

# **Contact information**

In 1989, the Nordic Council of Ministers decided to introduce a voluntary official ecolabel, the Nordic Swan Ecolabel. These organisations/companies operate the Nordic Ecolabelling system on behalf of their own country's government. For more information, see the websites:

#### **Denmark**

Ecolabelling Denmark info@ecolabel.dk www.svanemaerket.dk

# Finland

Ecolabelling Finland joutsen@ecolabel.fi www.joutsenmerkki.fi

### Sweden

Ecolabelling Sweden info@svanen.se www.svanen.se

#### **Iceland**

Ecolabelling Iceland svanurinn@uos.is www.svanurinn.is

#### **Norway**

Ecolabelling Norway
hei@svanemerket.no
www.svanemerket.no

This document may only be copied in its entirety and without any type of change.
It may be quoted from provided that Nordic Ecolabelling is stated as the source.

# 1 Environmental communication guideline for Nordic Swan Ecolabel Refurbished OEM Toner and Ink Cartridges

The overall environmental impact in the lifecycle of this product group and Nordic Swan Ecolabel identification of where ecolabelling can have the greatest effect is described in "Environmental impact of Refurbished OEM Toner and Ink Cartridges".

Nordic Swan Ecolabelled toner and ink cartridges are originally manufactured by the OEM (Original Equipment Manufacturer), and are then reused, after refurbishment and refilling with toner powder or ink.

Nordic Swan Ecolabel Refurbished OEM Toner and Ink Cartridges have a reduced environmental impact throughout their lifecycle. Used cartridges are collected via a takeback system and refurbished into new cartridges. This means less waste and less energy and raw material consumption – and promotes circular economy.

Nordic Swan Ecolabel Refurbished OEM Toner and Ink Cartridges:

- Contain a minimum of 75 % reused parts and have a good printing quality and capacity.
- Meet strict environmental and health requirements for the toner powder and ink
  used in the products e.g. PFAS, bisphenols, and identified and potential
  endocrine disruptors on up-to-date lists from EU and national authorities are not
  allowed.
- Are tested and meet strict limits for the contents of heavy metals and VOC in the toner powder and ink used in the products.
- Promote circular material flows by being included in a take-back system for used cartridges.

# 2 What can carry the Nordic Swan Ecolabel?

## Product group definition

Toner cartridges and ink cartridges that may carry the Nordic Swan Ecolabel are originally manufactured by the OEM (Original Equipment Manufacturer), and then they are refurbished and reassembled with toner powder or ink, drum and the necessary drive mechanism. Refurbished OPC units (Optical Photosensitive Conductor cartridges containing only drum) are also included in the product group. The cartridges are used for monochrome and colour electrophotographic printing and similar reproduction processes.

## 3 How to read this criteria document

Each requirement is marked with the letter O (obligatory requirement) and a number. All requirements must be fulfilled to be awarded a licence.

The text describes how the applicant shall demonstrate fulfilment of each requirement. There are also icons in the text to make this clearer. These icons are:

P Checked on site

To be awarded a Nordic Swan Ecolabel licence:

- All obligatory requirements must be fulfilled.
- Nordic Ecolabelling must inspect the site.

All information submitted to Nordic Ecolabelling is treated confidentially. Suppliers can send documentation directly to Nordic Ecolabelling, and this will also be treated confidentially.

# 4 Requirements

## 4.1 Definitions

Terms	Definition
OEM	Original Equipment Manufacturer
OPC units	Optical Photosensitive Conductor cartridges containing only drum
Refurbished/refurbishment	Defined according to Regulation (EU) 2024/1781 for Ecodesign under Article 2 Definitions: 'refurbishment' means actions carried out to prepare, clean, test, service and, where necessary, repair a product or a discarded product in order to restore its performance or functionality within the intended use and range of performance originally conceived at the design stage at the time of the placing of the product on the market.
Ingoing substances	All substances* in the toner powder or ink regardless of amount, including additives (e.g., preservatives and stabilizers) in the raw materials. Substances released from ingoing substances (e.g., biocidal active substances generated by preservatives, such as formaldehyde) are also regarded as ingoing substances.
	*N.B. the difference from the definition of substances in the REACH Regulation (EC) No 1907/2006. Whereas a REACH substance encompasses a chemical element or compound as well as its stabilising additives and process impurities, a substance here refers to each of the constituents separately. The constituents of a UVCB substance (Unknown or Variable composition, Complex reaction products or of biological materials) are also regarded separately, and all known constituents must be regarded.
Impurities	Trace levels of pollutants, contaminants and residues from production, incl. production of raw materials, that remain in the toner powder or ink in concentrations $\leq$ 1000 ppm ( $\leq$ 0.1000 w%). For formaldehyde other than as a biocidal active substance and for arylamine, the corresponding concentration is $\leq$ 25 ppm ( $\leq$ 0.0025 w%).
	Examples of impurities: Background environmental pollutants from feedstock, as well as contaminants and residues from production such as reactants (incl. monomers), reagents, catalysts, by-products, scavengers, detergents for production equipment, carry-over from other or previous production lines.
	<b>Impurities in the raw materials</b> in concentrations ≥ 10 000 ppm (≥ 1.0000 w%) are always regarded as ingoing substances, regardless of the concentration in the toner powder or ink.

# 4.2 Description of the product

## O1 Description of the product

Describe the product and how it meets the definition of a product that is entitled to carry the Nordic Swan Ecolabel.

List all product names, trade names, product types (e.g. toner cartridge) and brand name to which the cartridge fits (e.g. HP, Brother).

List all trade names of all toner powder and ink used, including manufacturer/supplier and product name of cartridge where it is used.

State company name and production site (full address and country) where refurbishing of cartridges takes place.

Send declaration of conformity for all products according to EN ISO/IEC 17050-1 or ISO/IEC 17050-1. The declaration of conformity shall as a minimum contain information about: the products names and models, which laws and directives are compliant with, who is responsible in EU, date and signing.

- Description as stated above plus declaration from the applicant that only cartridges originally manufactured by OEMs will be used.
- Declaration of conformity for all products according to EN ISO/IEC 17050-1 or ISO/IEC 17050-1.

# 4.3 Toner powder and ink

Refurbished OPC units (Optical Photosensitive Conductor cartridges) containing only drum are exempted from requirements in section 4.3.

#### O2 Classification of toner powder and ink

The toner powder or ink must not be classified with any of the hazards from CLP Regulation (EC) No 1272/2008 listed below.

Table 1 Classification of toner powder or ink CLP Regulation 1272/2008

Classification	Hazard class and category	Hazard code
Hazardous to the aquatic environment	Aquatic Acute 1	H400
	Aquatic Chronic 1	H410
	Aquatic Chronic 2	H411
	Aquatic Chronic 3	H412
	Aquatic Chronic 4	H413
Hazardous to the ozone layer	Ozone	H420
Acute toxicity	Acute Tox. 1 or 2	H300
	Acute Tox. 1 or 2	H310
	Acute Tox. 1 or 2	H330
	Acute Tox. 3	H301
	Acute Tox. 3	H311
	Acute Tox. 3	H331

Specific target organ toxicity:	STOT SE 1 or 2	H370
, , ,		
Single or repeated exposure	STOT SE 1 or 2	H371
	STOT RE 1 or 2	H372
	STOT RE 1 or 2	H373
Aspiration hazard	Asp. Tox. 1	H304
Skin sensitisation	Skin Sens. 1, 1A or 1B	H317**
Respiratory sensitisation	Resp. Sens. 1, 1A or 1B	H334
Carcinogenicity*	Carc. 1A or 1B	H350
	Card. 2	H351
Germ cell mutagenicity*	Muta. 1A or 1B	H340
	Muta. 2	H341
Reproductive toxicity*	Repr. 1A or 1B	H360
	Repr. 2	H361
	Lact.	H362

<sup>\*</sup> The classifications concern all classification variants. For example, H350 also covers classification H350i.

- Safety data sheet (SDS), prepared in accordance with Annex II of REACH Regulation (EC) No 1907/2006 for each toner powder and ink.
- Appendix 2 completed and signed by the applicant that all the toner powders or inks used in the Nordic Swan Ecolabelled cartridges meet the requirement.
- Appendix 3 completed and signed by the producer or supplier of the toner powder/ink for each toner powder/ink.

## O3 Classification of ingoing substances

Ingoing substances\* in toner powder or ink must not be classified with the hazards listed below, in accordance with CLP Regulation (EC) No 1272/2008.

Table 2 Classification of ingoing substances

Classification	Hazard class and category	Hazard code
Carcinogenicity**, ***	Carc. 1A or 1B	H350
	Carc. 2	H351
Germ cell mutagenicity**	Muta. 1A or 1B	H340
	Muta. 2	H341
Reproductive toxicity**	Repr. 1A or 1B	H360
	Repr. 2	H361
	Lact.	H362
Specific target organ toxicity:	STOT SE 1	H370
single exposure or repeated exposure	STOT RE 1	H372
Endocrine disruption for human health****	ED HH 1	EUH380
	ED HH 2	EUH381

<sup>\*\*</sup> For inks: Classification H317 due to preservatives are exempted from the requirement.

<sup>\*</sup> The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the toner powder or ink. Impurities are not regarded as ingoing substances and are exempt from the requirements. Ingoing substances and impurities are defined as in the definitions section, unless stated otherwise in the requirements.

Endocrine disruption for the environment****	ED ENV 1	EUH430
	ED ENV 2	EUH431
Persistent, Bioaccumulative and Toxic properties****	PBT	EUH440
Very Persistent, Very Bioaccumulative properties****	vPvB	EUH441
Persistent, Mobile and Toxic properties	PMT	EUH450
Very Persistent, Very Mobile properties	vPvM	EUH451

<sup>\*\*</sup> Including all combinations of stated exposure routes and stated specific effect. For example, H350 also covers classification H350i.

- \*\*\*\* See also O4 Excluded substances for additional requirements for potential or identified endocrine disruptors and PBT/vPvB substances.
- Appendix 2 completed and signed by the applicant that all the toner powders or inks used in the Nordic Swan Ecolabelled cartridges meet the requirement.
- Appendix 3 completed and signed by the producer or supplier of the toner powder/ink for each toner powder/ink.

#### O4 Excluded substances

The following substances or substance groups must not be present as ingoing substances\* in toner powder or ink.

- \* The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the toner powder or ink. Impurities are not regarded as ingoing substances and are exempt from the requirements. Ingoing substances and impurities are defined as in the definitions section, unless stated otherwise in the requirements.
  - Substances on the REACH Candidate list of SVHC substances https://www.echa.europa.eu/candidate-list-table
  - PBT and vPvB substances in accordance with REACH Annex XIII, including substances under investigation according to the ECHA PBT assessment list https://echa.europa.eu/pbt/-/dislist/details/0b0236e1889ab857
  - Potential or identified endocrine disruptors, according to any of the following EU member state initiative "Endocrine Disruptor Lists" List I; II and III
    - N.B. A substance which is transferred to one of the corresponding sublists called "Substances no longer on list" and no longer appears on any of List I-III, is no longer excluded. The exemption is those substances on sublist II which were evaluated and where concern for endocrine disruption may remain. Nordic Ecolabelling will evaluate the circumstances case-by-case, based on the background information indicated on the sublist.
  - Ethylenediamine tetraacetate (EDTA, CAS No. 6381-92-6) and its salts and Diethylenetriamine pentaacetate (DTPA, CAS No. 67-43-6) and its salts
  - Alkylphenols (AP) (e.g. butylated hydroxy anisole (BHA, CAS No. 25013-16-5), alkylphenol ethoxylates (APEO), and other alkylphenol derivates (APD)
  - Bisphenols and bisphenol derivatives, defined as the 34 bisphenols that have been identified by ECHA¹ for further EU regulatory risk management because they are

<sup>\*\*\*</sup> Titanium dioxide (CAS 13463-67-7) is exempted from the requirement.

<sup>&</sup>lt;sup>1</sup> EC/List No. 201-245-8 (BPA), 201-025-1 (BPB), 401-720-1 (4,4'-Isobutylethylidenediphenol), 216-036-7 (BPAF) and its 8 salts (278-305-5; 425-060-9; 443-330-4; 468-740-0; 469-080-6; 479-100-5; 943-265-6; 947-368-7), 201-250-5 (BPS), 201-240-0 (BPC), 204-279-1 (TBMD), 201-618-5 (6,6'-di-tert-butyl-4,4'-butylidenedi-m-cresol), 242-

known or potential endocrine disruptors for the environment or for human health, or can be identified as toxic for reproduction

- · Hypochlorites and hypochlorous acid
- Per- and polyfluoroalkyl substances (PFAS)\*\*
- Halogenated organic compounds\*\*\*
  - \*\*\* Exemptions for:
  - a) Pigments that meet the EU's requirement concerning colourants in food packaging under Resolution AP (89) point 2.5
  - b) Preservatives in inks.

Please note: Per- and polyfluoroalkyl substances (PFAS) are covered by their own bullet and are not included in the exemption

- \*\* PFAS: as any substance that contains at least one fully fluorinated methyl (CF3-) or methylene (-CF2-) carbon atom (without any H/Cl/Br/l attached to it).
- Appendix 2 completed and signed by the applicant that all the toner powders or inks used in the Nordic Swan Ecolabelled cartridges meet the requirement.
- Appendix 3 completed and signed by the producer or supplier of the toner powder/ink for each toner powder/ink.
- If halogenated organic pigments are used, a declaration is required from the pigment supplier confirming that the pigment meets the EU's requirement concerning colourants in food packaging under Resolution AP (89) point 2.5.

#### O5 Aromatic amines

Azo dyes that may release carcinogenic aromatic amines listed in Regulation (EC) No 1907/2006, Annex XVII, Appendix 8, must not be used in toner powder and ink.

- Appendix 2 completed and signed by the applicant that all the toner powders or inks used in the Nordic Swan Ecolabelled cartridges meet the requirement.
- Appendix 3 completed and signed by the producer or supplier of the toner powder/ink for each toner powder/ink.

#### O6 Analysis for heavy metals, tin organic compounds and VOC

A test report shall declare that the analysis results for all toner powders and inks to be used for Nordic Swan Ecolabelled cartridges must be smaller or equal to the limit values listed in Table 3, Table 4 and Table 5 below.

The toner powders and inks must be analysed according to "TÜV Rheinland LGA Products GmbH" analysis methods. Toner powders and inks can also be analysed by testing the cartridges in accordance with current methods in the Blue Angel Criteria RAL-UZ 177.

Coloured toner powder/ink (e.g., cyan, magenta and yellow) may be mixed in equal shares and hereafter analysed. Black toner powder/ink must be analysed separately.

<sup>895-2, 248-607-1, 405-520-5 (</sup>D8), 217-121-1 (DAB), 227-033-5 (TMBPA), 210-658-2 (BPF), 411-570-9, 277-962-5 (contains BPS, 500-086-4 (contains BPA), 500-263-6 (contains BPA), 500-607-5 (contains BPA), 701-362-9, 904-653-0 (contains BPA), 908-912-9 (contains BPF), 926-571-4 (contains BPA), 931-252-8 (contains BPA), 941-992-3 (contains BPS), 943-503-9 (contains BPA).

<sup>[1]</sup> Assessment of regulatory needs: Bisphenols. ECHA – 16 December 2021: Section 2.1: Bisphenols for which further EU RRM is proposed <a href="https://echa.europa.eu/documents/10162/5e60f2fe-12d0-7f6b-5868-f199cfd7f984">https://echa.europa.eu/documents/10162/5e60f2fe-12d0-7f6b-5868-f199cfd7f984</a>

The test laboratory shall meet the requirements in Appendix 1.

Table 3 Limit values for metals

Test parameters	Limit value [mg/kg]
Cobalt	25
Nickel	70
Cadmium	5
Lead	25
Mercury	2
Chromium (total)	1
Chromium VI	3

Table 4 Limit values for tin organic compounds

Test parameters	Limit value [mg/kg]	
Method A is valid when extracted with methanol. If the limit value of method A is exceeded, method B applies (extraction using artificial sweat solution).	Method A*	Method B**
Total of tributyltin (TBT) and dibutyltin (DBT)	0.5	0.05
Total of other tin organic compounds***	5	0.5

<sup>\*</sup> Test method: Derivatization with sodium tetraethyl borate, extraction with methanol, determination by means of GC/MS.

Table 5 Limit values for volatile organic contents

Test parameters	Limit value [mg/kg]
TVOC	300
Styrene	40
Benzene	0.35

- Appendix 2 completed and signed by the applicant that all the toner powders and inks used in the Nordic Swan Ecolabelled cartridges meet the requirement.
- Appendix 3 completed and signed by the producer or supplier of the toner powder or the ink for each toner powder/ink.
- A Test Report for every toner powder and ink analysed, comprising the following:
  - Details of the place, time and type of analysis performed.
  - Information that states that the test laboratory meets requirement in Appendix 1.
  - Designation of the toner/ink or module.
  - Analysis results.
  - Test report(s).

<sup>\*\*</sup> Derivatization with sodium tetraethyl borate, extraction with artificial sweat solution (DIN EN ISO 105-E04), determination by means of GC/MS.

<sup>\*\*\*</sup> Total of butyltin, tetrabutyltin, octyltin, dioctyltin, tricyclohexyltin and triphenyltin.

# 4.4 Quality

## O7 Production quality

The annual average level of complaints relating to Nordic Swan Ecolabelled products must not exceed 1%. Only complaints relating to Nordic Ecolabelling criteria shall be included in this calculation.

The level of complaints shall be calculated monthly for each type of Nordic Swan Ecolabelled cartridge. These complaint figures shall be used actively to assure and raise the quality. If the level of complaints exceeds 1% for a month, a report shall be submitted detailing the reasons and remedial actions. If the level of complaints exceeds 2%, contact Nordic Ecolabelling.

Specification of complaints shall include types of product-related complaint, how claims are dealt with, the follow-up of production and contact with Nordic Ecolabelling.

#### O8 Print quality for toner cartridges

All toner cartridges must be tested to and comply with one of the following standards/test methods:

- DIN Technical Report 155
- ASTM F:2036 for monochrome printouts
- DIN 33870-1 for monochrome printouts
- DIN 33870-2 for colour printouts

The print quality must be at the same level as the equivalent OEM toner cartridge.

For applications and the extension of a licence, each Nordic Swan Ecolabelled toner cartridge type shall be tested.

If the toner powder and/or the drum are changed during the licence period, the relevant cartridge type shall be tested.

Independent auditor from a third-party company (e.g. TÜV, STMC, Dekra, Intertek etc.) must confirm that testing has been carried out in line with the requirement. The third-party company must confirm in writing that the auditor is familiar with the applied test method and provide a CV to support this expertise. Alternatively, the applicant may be certified under the STMC certification system.

During the licence period, print quality must be tested annually for 50% of the Nordic Swan Ecolabelled toner cartridge types. However, for OEM-manufactures the applicant shall declare that the same toner powder and spare parts are used in the remanufactured OEM cartridges as are used in the new manufactured OEM cartridges. Otherwise, 50% of the toner cartridge types must be tested annually.

Analysis laboratories performing tests must meet the requirements in Appendix 1.

- Confirmation from independent auditors from a third-party company that testing has been carried out in line with the requirement and documentation for expertise in this area. Alternatively, documentation for that the applicant is certified under the STMC certification system.
- Specify the test standard used and describe the test process in production.
- Documentation showing that the analysis laboratory fulfils the requirements in Appendix 1.

- □ 0 completed and signed by the applicant.
- For OEM-manufactures: In addition to above, declaration from applicant that the same toner powder and spare parts are used in the remanufactured OEM cartridges as are used in the new manufactured OEM cartridges.
- Test results must be available during inspection visits. The documentation shall be available to Nordic Ecolabelling on request.

#### O9 Print capacity for toner cartridges

All toner cartridges must be tested to and comply with one of the following standards/test methods:

- DIN Technical Report 155
- ISO/IEC 19752 for monochrome cartridges
- ISO/IEC 19798 for colour cartridges
- DIN 33870-1 for monochrome cartridges
- DIN 33870-2 for colour cartridges
- ASTM F:1856

Requirement level for print capacity for each cartridge type in the application, in a comparison of the test results between the refurbished OEM cartridge type and the equivalent OEM cartridge type: The average value for the refurbished OEM cartridge type must not fall below -10% in the above comparison\*.

Please note specific requirements for high-capacity cartridges, see requirement O12.

For applications and the extension of a licence, each relevant toner cartridge type shall be tested.

If the toner powder and/or the drum are changed during the licence period, the relevant cartridge type shall be tested in accordance with the chosen test method as outlined above.

Independent auditor from a third-party company (e.g. TÜV, STMC, Dekra, Intertek etc.) must confirm that testing has been carried out in line with the requirement. The third-party company must confirm in writing that the auditor is familiar with the applied test method and provide a CV to support this expertise. Alternatively, the applicant may be certified under the STMC certification system.

During the licence period, print capacity must be tested annually for 50% of the Nordic Swan Ecolabelled toner cartridge types\*.

Analysis laboratories performing tests must meet the requirements in Appendix 1.

\* However, for OEM-manufactures the applicant shall declare that the same toner powder and spare parts are used in the refurbished OEM cartridges as are used in the new manufactured OEM cartridges. Otherwise, the requirement regarding comparison must be met and 50% of the toner cartridge types must be tested annually.

The above requirement level is applicable irrespective of the standard or test method used.

Confirmation from independent auditors from a third-party company that testing has been carried out in line with the requirement and documentation for expertise in this area. Alternatively, documentation for that the applicant is certified under the STMC certification system.

- Specify the test standard used and describe the test process in production.
- Documentation showing that the analysis laboratory fulfils the requirements in Appendix 1.
- Appendix 4 completed and signed by the applicant.
- For OEM-manufactures: Declaration from applicant that the same toner powder and spare parts are used in the refurbished OEM cartridges as are used in the new manufactured OEM cartridges.
- Test results must be available during inspection visits. The documentation shall be available to Nordic Ecolabelling on request.

## O10 Print quality for ink cartridges

All ink cartridges must be tested to and comply with the following standard/test method:

DIN 33871-1

The print quality must be at the same level as the equivalent OEM ink cartridge.

For applications and the extension of a licence, each Nordic Swan Ecolabelled ink cartridge type shall be tested.

If the ink is changed during the licence period, the relevant cartridge type shall be tested.

Independent auditor from a third-party company (e.g. TÜV, STMC, Dekra, Intertek etc.) must confirm that testing has been carried out in line with the requirement. The third-party company must confirm in writing that the auditor is familiar with the applied test method and provide a CV to support this expertise. Alternatively, the applicant may be certified under the STMC certification system.

During the licence period, print quality must be tested annually for 50% of the Nordic Swan Ecolabelled ink cartridge types. However, for OEM-manufactures the applicant shall declare that the same ink and spare parts are used in the refurbished OEM cartridges as are used in the new manufactured OEM cartridges. Otherwise, 50% of the ink cartridge types must be tested annually.

Analysis laboratories performing tests must meet the requirements in Appendix 1.

- Confirmation from independent auditors from a third-party company that testing has been carried out in line with the requirement and documentation for expertise in this area. Alternatively, documentation for that the applicant is certified under the STMC certification system.
- Specify the test standard used and describe the test process in production.
- Documentation showing that the analysis laboratory fulfils the requirements in Appendix 1.
- Appendix 5 completed and signed by the applicant.
- For OEM-manufactures: In addition to above, declaration from applicant that the same ink and spare parts are used in the refurbished OEM cartridges as are used in the new manufactured OEM cartridges.
- Test results must be available during inspection visits. The documentation shall be available to Nordic Ecolabelling on request.

#### O11 Print capacity for ink cartridges

All ink cartridges must be tested to and comply with one of the following standards/test methods:

- DIN 33871-1
- ISO/IEC 22505 for monochrome cartridges
- ISO/IEC 24711 for colour cartridges

Requirement level for print capacity for each cartridge type in application, in a comparison of the test results between the refurbished OEM cartridge type and the equivalent OEM cartridge type: The average value for the refurbished OEM cartridge type must not fall below -10% in the above comparison\*.

Please note specific requirements for high-capacity cartridges, see requirement O12.

For applications and the extension of a licence, each relevant ink cartridge type shall be tested.

If the ink is changed during the licence period, the relevant cartridge type shall be tested in accordance with the chosen test method as outlined above.

Independent auditor from a third-party company (e.g. TÜV, STMC, Dekra, Intertek etc.) must confirm that testing has been carried out in line with the requirement. The third-party company must confirm in writing that the auditor is familiar with the applied test method and provide a CV to support this expertise. Alternatively, the applicant may be certified under the STMC certification system.

During the licence period, print capacity must be tested annually for 50% of the Nordic Swan Ecolabelled toner cartridge types\*.

\* However, for OEM-manufactures the applicant shall declare that the same ink and spare parts are used in the refurbished OEM cartridges as are used in the new manufactured OEM cartridges. Otherwise, the requirement regarding comparison must be met and 50% of the ink cartridge types must be tested annually.

The above requirement level is applicable irrespective of the standard or test method used.

Analysis laboratories performing tests must meet the requirements in Appendix 1.

- Confirmation from independent auditors from a third-party company that testing has been carried out in line with the requirement and documentation for expertise in this area. Alternatively, documentation for that the applicant is certified under the STMC certification system.
- Specify the test standard used and describe the test process in production.
- Documentation showing that the analysis laboratory fulfils the requirements in Appendix 1.
- Appendix 5 completed and signed by the applicant.
- For OEM-manufactures: Declaration from applicant that the same ink and spare parts are used in the refurbished OEM cartridges as are used in the new manufactured OEM cartridges.
- Test results must be available during inspection visits. The documentation shall be available to Nordic Ecolabelling on request.

# 4.5 Reuse and take-back system

#### O12 Reuse

The refurbished OEM cartridge must comprise a minimum of 75% by weight reused parts, as an average of at least 100 units.

The weight of the toner powder or ink shall not be included in this total weight. For OPC units the weight of the drum shall not be included in this total weight.

For refurbished OEM cartridges that can be expanded to produce more printouts and that deliver at least 50% more printouts than the equivalent OEM high capacity (HC) cartridge type, the proportion by weight of any new toner or ink container is excluded when calculating the proportion of reused parts.

Example: An OEM cartridge comes in an "A" and an "X" version. The "X" version is an HC cartridge that delivers 4,000 prints as specified by the OEM. A refurbished OEM "A" or "X" cartridge that is expanded with the addition of a new toner or ink container must deliver at least 4,000 + 2,000 = 6,000 printouts to fulfil the requirement.

- Specification of the proportion by weight of reused parts in each cartridge type and which parts are replaced during refurbishing and refilling.
- The specification for the expanded cartridge type with a new toner or ink container must contain information on the number of printouts from the refurbished OEM cartridge type. Testing is to be carried out in accordance with the chosen method in O9 for toner cartridges and O11 for ink cartridges. The specification from the OEM may be used to state the number of printouts from the equivalent OEM HC cartridge type.

#### O13 Take-back system for refurbishing

To ensure that the cartridges are returned for refurbishing, a cartridge take-back system must be in place.

Agreements between the manufacturers and distributers/resellers shall include a clause stating that the distributer/reseller shall, via their website, provide a take-back system.

#### **Private consumers**

Private consumers must be able to return individual cartridges free of charge, e.g. by prepaid address label or packaging for return. The licensee may also recommend other free methods of returning single cartridges for private consumers.

#### **Business customers**

The return system may comprise one or more of the following measures:

- The licensee's / distributor's / reseller's business customers should be able to order and return collection boxes from the licensee.
- Prepaid address label or packaging for return supplied with individual products.
- If maintenance service of the imaging equipment (e.g., printer, multifunctional device) is offered, take-back of cartridges is part of the service.

Nordic Ecolabelling may approve alternative take-back systems.

Description of the take-back system including how it is user-friendly and easy to use.

- The terms of agreements between the licensee and distributors / resellers detailing rules on how the take-back system must be designed in order to fulfil the requirement.
- Signed agreements from all distributors and resellers shall be kept by the licensee and be available for presentation on a site visit. The documentation shall be available to Nordic Ecolabelling on request.

# 4.6 Packaging

## O14 Chlorinated plastics in packaging

The product packaging must not contain chlorinated plastics.

Specification of materials used for packaging and product information for the packaging.

#### 4.7 Customer information

#### O15 Customer information

The following end-user information requirements must be fulfilled:

- a) The packaging must be clearly marked with:
  - The Nordic Swan Ecolabel logo and the licence number.
  - Information that the cartridge is part of a recycling process.
  - Information that the empty cartridge should be sent for refurbishing, not thrown away.
    - Information about how to send cartridge for refurbishing, e.g. website (directly to the website describing this).
    - If the cartridge is sold along with packaging for return, this must be specified in the information. It must also be stated that the pre-paid envelope (if provided) can be used for return.
- b) Information that the cartridge is originally an OEM cartridge that has been refurbished, refilled and quality controlled. There should be reference to Nordic Ecolabelling's website.
- c) The end-user of the toner cartridge must be given clear, simple information that inhaling of toner powder can be harmful to health, plus instructions on how to handle any loose toner powder that may arise, due to a damaged cartridge.
- d) The consumer should also be provided with information regarding warranty and complaint procedures. The information shall be provided in writing in the Nordic languages applicable to the markets in which the product is sold.

QR code can be used for information in point b) to d).

- Example of the labelling of packaging (copy or photo) and product information provided to the customer.
- Procedures detailing how the applicant ensures that the product information required is provided with the product packaging.

# 4.8 Working environment and legislation

#### O16 Handling of loose toner powder

Suction shall be provided for all handling of loose toner powder\*. Alternatively, the powder shall be handled in a closed process or workers handling loose toner powder shall wear breathing masks of the quality prescribed by the local authorities.

- \* Examples of tasks that may involve loose toner powder include disassembly of the cartridge, all handling of loose toner powder when refilling the refurbished OEM toner cartridge and when adding loose toner powder to the refurbished OEM cartridges before test printing takes place.
- □ Description of the handling of loose toner powder in production.

#### O17 Legislation and labour conventions

The licensee must guarantee adherence to applicable patent legislation, safety regulations, working environment legislation, environmental legislation and conditions/concessions specific to the operations at all sites where the Nordic Swan Ecolabelled toner cartridge are manufactured.

The licensee must also ensure that all production plants and manufacturing sites of the Nordic Swan Ecolabelled cartridges comply with the following ILO Conventions\*:

- Prohibition of forced labour (ILO Conventions Nos. 29 and 105)
- Prohibition of child labour (ILO Conventions Nos. 138 and 182)
- No discrimination (ILO Conventions Nos. 100 and 111)
- \* The International Labour Organisation Conventions.
- Declaration from the applicant that the requirement is met and the contact details of the regulatory authorities for health and safety issues, environmental legislation and site-specific terms/concessions. Appendix 6 can be used.

#### 4.9 Licence maintenance

The purpose of the licence maintenance is to ensure that fundamental quality assurance is dealt with appropriately.

#### O18 Customer complaints

The licensee must guarantee that the quality of the Nordic Swan Ecolabel product or service does not deteriorate during the validity period of the licence. Therefore, the licensee must keep an archive over customer complaints.

Note that the original routine must be in one Nordic language or in English.

Your company's routine for handling and archiving customer complaints.

#### O19 Traceability

The licensee must be able to trace the Nordic Swan Ecolabel products in the production. A manufactured / sold product should be able to trace back to the occasion (time and date) and the location (specific factory) and, in relevant cases, also which machine/production line

where it was produced. In addition, it should be possible to connect the product with the actual raw material used.

You can upload your company's routine or a description of the actions to ensure traceability in your company.

Your routine or a description.

# 5 Criteria version history

Nordic Ecolabelling adopted version 6.0 of the criteria for Refurbished OEM Toner and Ink Cartridges on 30 September 2025. The criteria are valid until 30 September 2030.

# 6 How to apply and regulations for the Nordic Ecolabelling

#### **Application and costs**

For information about the application process and fees for this product group, please refer to the respective national website. For contact information see the beginning of this document.

The application consists of an application form/web form and documentation showing that the requirements are fulfilled.

### Licence validity

The Nordic Swan Ecolabel licence is valid providing the criteria are fulfilled and until the criteria expire. The validity period of the criteria may be prolonged or adjusted, in which case the licence is automatically prolonged, and the licensee informed.

Revised criteria shall be published at least one year prior to the expiry of the present criteria. The licensee is then offered the opportunity to renew their licence.

#### Responsibility for Compliance with Applicable Legislation

When applying for the Nordic Swan Ecolabel, the applicant/licensee confirms compliance with all current regulatory requirements related to both the exterior and interior environment in connection with the production and handling of the product(s) covered by the application. Furthermore, the applicant declares that all applicable regulatory requirements within the Nordic region are met for the product(s). Compliance with these regulations is a prerequisite for obtaining a licence.

#### On-site inspection

In connection with handling of the application, Nordic Ecolabelling normally performs on-site inspection visit/-s to ensure adherence to the requirements. For such an inspection, data used for calculations, original copies of submitted certificates, test records, purchase statistics, and similar documents that support the application must be available for examination.

#### Queries

Please contact Nordic Ecolabelling if you have any queries or require further information. See contact info in the beginning of this document. Further information and assistance (such as calculation sheets or electronic application help) is available. Visit the relevant national website for further information.

Nordic Ecolabelling may decide to check whether remanufactured OEM toner and ink cartridges fulfils Nordic Ecolabelling requirements during the licence period. This may involve a site visit, random sampling, or similar test.

The licence may be revoked if it is evident that remanufactured OEM toner and ink cartridges does not meet the requirements.

Random samples may also be taken in-store and analysed by an independent laboratory. If the requirements are not met, Nordic Ecolabelling may charge the analysis costs to the licensee.

#### **Regulations for the Nordic Ecolabelling of products**

When the Nordic Swan Ecolabel is used on products the licence number shall be included.

More information on graphical guidelines, regulations and fees can be found at www.nordic-swan-ecolabel.org/regulations

# Appendix 1 Laboratories for testing, sampling and analysis

#### **General requirements**

The laboratory/institute must be competent and impartial.

If accreditation is not required separately, the testing, sampling and/or analysis laboratory must meet the general requirements of ISO 17025 standard for quality control of laboratories or be an official GLP-approved laboratory.

The applicant's analysis laboratory may be approved for testing, sampling and analysis if:

- testing, sampling and analysis is monitored by the authorities, or
- the manufacturer's quality assurance system covers testing, analyses and sampling and is certified to ISO 9001 or ISO 9002, or
- the manufacturer can demonstrate agreement between a first-time test conducted at the manufacturer's own laboratory and testing carried out in parallel at an independent test institute, and the manufacturer takes samples in accordance with a fixed sampling schedule.

Nordic Ecolabelling 008/6.0

# Appendix 2 Declaration from the applicant: Toner powder/ink

This is a summary declaration for all toner powders and/or inks used in the Nordic Swan Ecolabelled cartridges.

This declaration is based on the knowledge we have at the time of the application, based on declarations from manufacturer/supplier of toner powders and/or inks (appendix 3), with reservations for new advances and new knowledge. Should such new knowledge arise, the undersigned is obliged to submit an updated declaration to Nordic Ecolabelling.

Summary declaration for all toner powders and/or ink used i	n the Nordic Swan Ecolabelled cartridges.	Is the requir fulfille	ement
		YES	NO
O1 Full list of all toner powders and/or inks, including for each:			
Trade name			
Manufacturer/supplier			
<ul> <li>Product name of cartridge where it is used</li> </ul>			
Is the above list attached?		Ш	Ш
O2 Classification of toner powder and ink			
O2 Safety data sheet of toner powders and inks			
Is safety data sheet in accordance with Annex II of REACH (Reg and/or ink attached?	ulation 1907/2006) for each toner powder		
O3 Classification of ingoing substances*			
O4 Excluded substances*			
O5 Aromatic amines			
O6 Analysis for heavy metals, tin organic compounds and VOC			П
The requirements in the criteria document and accompanying apper ink. Impurities are not regarded as ingoing substances and are impurities are defined as in the definitions section, unless stated on the event of any changes of the toner powder as the accompany to the product of the contract of the con	exempt from the requirements. Ingoing substant therwise in the requirements.  s and/or inks, a new declaration of	ces and	
of the requirements is to be submitted to Nordic	Ecolabelling.		
Place and date:	Company name:		
Responsible person:	Signature of responsible person:		
Telephone:	Email:		

# Appendix 3 Declaration from manufacturer/supplier of toner powder or ink

To be used in conjunction with an application for a licence for the Nordic Swan Ecolabel of Refurbished OEM Toner and Ink Cartridges.

This declaration is based on the knowledge we have at the time of the application, based on tests and/or declarations from raw material manufacturers, with reservations for new advances and new knowledge. Should such new knowledge arise, the undersigned is obliged to submit an updated declaration to Nordic Ecolabelling.

Manufacturer/supplier:					
Trade name of the toner powder or ink:					

The requirements in the criteria document and accompanying appendices apply to all ingoing substances in the toner powder or ink. Impurities are not regarded as ingoing substances and are exempt from the requirements. Ingoing substances and impurities are defined as below, unless stated otherwise in the requirements.

Ingoing substances and impurities are defined as:

- All substances\* in the toner powder or ink regardless of amount, including additives
   (e.g., preservatives and stabilizers) in the raw materials. Substances released from
   ingoing substances (e.g., biocidal active substances generated by preservatives, such
   as formaldehyde) are also regarded as ingoing substances.
  - \* N.B. the difference from the definition of substances in the REACH Regulation (EC) No 1907/2006. Whereas a REACH substance encompasses a chemical element or compound as well as its stabilising additives and process impurities, a substance here refers to each of the constituents separately. The constituents of a UVCB substance (Unknown or Variable composition, Complex reaction products or of biological materials) are also regarded separately, and all known constituents must be regarded.
- Impurities: Trace levels of pollutants, contaminants and residues from production, incl. production of raw materials, that remain in the toner powder or ink in concentrations ≤ 100 ppm (≤ 0.0100 w%). For formaldehyde other than as a biocidal active substance and for arylamine, the corresponding concentration is ≤ 25 ppm (≤ 0.0025 w%).
  - Examples of impurities: Background environmental pollutants from feedstock, as well as contaminants and residues from production such as reactants (incl. monomers),

reagents, catalysts, by-products, scavengers, detergents for production equipment, carry-over from other or previous production lines.

Impurities in the raw materials in concentrations  $\geq$  10 000 ppm ( $\geq$  1.0000 w%) are always regarded as ingoing substances, regardless of the concentration in the toner powder or ink.

Type and colour

Is the product a toner powder or an ink?	Toner powder	Ink			
Colour of the toner powder/ink:					
Black					
Cyan					
Magenta					
Yellow					
Another colour					
O2 Classification of the toner powder/ink:					
According to CLP Regulation 1272/2008. Incl. all classification variants. For example, H350	) also covers classifica		<del> </del>		
Is the toner powder/ink classified with any of the hazard phrases below?		YES	NO		
Aquatic Acute 1 H400					
Aquatic Chronic 1 H410					
Aquatic Chronic 2 H411					
Aquatic Chronic 3 H412					
Aquatic Chronic 4 H413					
Ozone H420					
Acute Tox. 1 or 2 H300					
Acute Tox. 1 or 2 H310					
Acute Tox. 1 or 2 H330					
Acute Tox. 3 H301					
Acute Tox. 3 H311					
Acute Tox. 3 H331					
STOT SE 1 or 2 H370					
STOT SE 1 or 2 H371					
STOT RE 1 or 2 H372					
STOT RE 1 or 2 H373					

Asp. Tox. 1 H304		
Skin Sens. 1, 1A or 1B H317*		
* For inks: Classification H317 due to preservatives are exempted from the requirement.	Ш	
If yes to H317:		
Is the classification H317 due to preservatives?	Ш	Ш
If yes to H317 and due to preservatives:		
Please state chemical name, CAS No. and amount (in ppm, wt% or mg/kg) of the preservative(s):		
Resp. Sens. 1, 1A or 1B H334		
Carc. 1A or 1B H350		
Card. 2 H351		
Muta. 1A or 1B H340		
Muta. 2 H341		
Repr. 1A or 1B H360		
Repr. 2 H361		
Lact. H362		
Is safety data sheet in accordance with Annex II of REACH (Regulation 1907/2006) for the toner powder/ink attached?		
	<u> </u>	1
O2 Classification of ingoing substances		
O3 Classification of ingoing substances:  According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classifica	tion H35	50i.
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification	tion H35	50i.
	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification by the toner powder/ink has any ingoing substances classified with any of the hazard phrases below?	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification variants. For example, H350 also covers classification variants. For example, H350 also covers classified with any of the hazard phrases below?  Carc. 1A or 1B H350  Card. 2 H351*	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification variants.	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification var	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification var	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification var	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification var	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification var	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification var	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification variants. For example, H350 also covers classification variants. For example, H350 also covers classification to the toner powder/ink has any ingoing substances classified with any of the hazard phrases below?  Carc. 1A or 1B H350  Card. 2 H351*  * Titanium dioxide (CAS 13463-67-7) is exempted from the requirement.  Muta. 1A or 1B H340  Muta. 2 H341  Repr. 1A or 1B H360  Repr. 2 H361  Lact. H362	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification var	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification by the toner powder/ink has any ingoing substances classified with any of the hazard phrases below?  Carc. 1A or 1B H350  Card. 2 H351*  * Titanium dioxide (CAS 13463-67-7) is exempted from the requirement.  Muta. 1A or 1B H340  Muta. 2 H341  Repr. 1A or 1B H360  Repr. 2 H361  Lact. H362  STOT SE 1 H370  STOT RE 1 H372	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classification by the toner powder/ink has any ingoing substances classified with any of the hazard phrases below?  Carc. 1A or 1B H350  Card. 2 H351*  * Titanium dioxide (CAS 13463-67-7) is exempted from the requirement.  Muta. 1A or 1B H340  Muta. 2 H341  Repr. 1A or 1B H360  Repr. 2 H361  Lact. H362  STOT SE 1 H370  STOT RE 1 H372  ED HH 1 EUH380	1	ı
According to CLP Regulation 1272/2008.Incl. all classification variants. For example, H350 also covers classificated by the toner powder/ink has any ingoing substances classified with any of the hazard phrases below?  Carc. 1A or 1B H350  Card. 2 H351*  * Titanium dioxide (CAS 13463-67-7) is exempted from the requirement.  Muta. 1A or 1B H340  Muta. 2 H341  Repr. 1A or 1B H360  Repr. 2 H361  Lact. H362  STOT SE 1 H370  STOT RE 1 H372  ED HH 1 EUH380  ED HH 2 EUH381	1	ı

** See also O4 Excluded substances for additional requirements for potential or identified endocrine disruptors and PBT/vPvB substances.		
vPvB EUH441**		
** See also O4 Excluded substances for additional requirements for potential or identified endocrine disruptors and PBT/vPvB substances.	Ш	
PMT EUH450		
vPvM EUH451		
O4 Excluded substances:		
Do the toner powder/ink has any ingoing substances or substance groups below?	YES	NO
Substances on the REACH Candidate list of SVHC substances		
https://www.echa.europa.eu/candidate-list-table		Ш
PBT and vPvB substances in accordance with REACH Annex XIII, including substances under investigation according to the ECHA PBT assessment list <a href="https://echa.europa.eu/pbt/-/dislist/details/0b0236e1889ab857">https://echa.europa.eu/pbt/-/dislist/details/0b0236e1889ab857</a>		
Potential or identified endocrine disruptors, according to any of the following EU member state initiative "Endocrine Disruptor Lists" List I; II and III		
N.B. A substance which is transferred to one of the corresponding sublists called "Substances no longer on list" and no longer appears on any of List I-III, is no longer excluded. The exemption is those substances on sublist II which were evaluated and where concern for endocrine disruption may still remain. Nordic Ecolabelling will evaluate the circumstances case-by-case, based on the background information indicated on the sublist.		
Per- and polyfluoroalkyl substances (PFAS)		
PFAS: as any substance that contains at least one fully fluorinated methyl (CF3-) or methylene (-CF2-) carbon atom (without any H/Cl/Br/l attached to it).		
Ethylenediamine tetraacetate (EDTA, CAS No. 6381-92-6) and its salts and Diethylenetriamine pentaacetate (DTPA, CAS No. 67-43-6) and its salts		
Hypochlorites and hypochlorous acid		
Alkylphenols (AP) (e.g. butylated hydroxy anisole (BHA, CAS No. 25013-16-5), alkylphenol ethoxylates (APEO), and other alkylphenol derivates (APD)		
Bisphenols and bisphenol derivatives, defined as the 34 bisphenols that have been identified by ECHA for further EU regulatory risk management because they are known or potential endocrine disruptors for the environment or for human health, or can be identified as toxic for reproduction		
Halogenated organic compounds  Exemptions for:		
<ul> <li>a) Pigments that meet the EU's requirement concerning colourants in food packaging under Resolution AP (89) point 2.5</li> <li>b) Preservatives in inks.</li> </ul>		
Please note: Per- and polyfluoroalkyl substances (PFAS) are covered by their own bullet and are not included in the exemption.		
For halogenated organic compounds: Are any of the exemptions used?		
For halogenated organic compounds, if any exemptions are used: Please state if it is pigments or preservatives:		
For halogenated organic compounds, if exemption is for pigments:  Do the pigments meets the EU's requirement concerning colourants in food packaging under Resolution AP (89) point 2.5?		

O5 Aromatic amines:		
	YES	NO
Do the toner powder/ink contain any azo dyes that may release carcinogenic aromatic amines listed in Regulation (EC) No 1907/2006, Annex XVII, Appendix 8?		

#### O6 Analysis for heavy metals, tin organic compounds and VOC:

A test report shall declare that the analyse results for toner powder/ink is maximum the limit values listed in the table 1, 2 and 3 below:

Tabel 1, Limit values for heavy metals:

Test parameters	Limit value [mg/kg]
Cobalt	25
Nickel	70
Cadmium	5
Lead	25
Mercury	2
Chromium (total)	1
Chromium VI	3

#### Tabel 2, Limit values for tin organic compounds:

Test parameters	Limit value [mg/kg]	
Method A is valid when extracted with methanol. If the limit value of method A is exceeded, method B applies (extraction using artificial sweat solution).	Method A*	Method B**
Total of tributyltin (TBT) and dibutyltin (DBT)	0.5	0.05
Total of other tin organic compounds***	5	0.5

<sup>\*</sup> Test method: Derivatization with sodium tetraethyl borate, extraction with methanol, determination by means of GC/MS.

Tabel 2, Limit values for volatile organic contents:

Test parameters	Limit value [mg/kg]
TVOC	300
Styrene	40
Benzene	0.35

	YES	NO
The toner powder shall be analysed according to "TÜV Rheinland LGA Products GmbH" analysis methods. Toner powder can also be analysed by testing the toner cartridge in accordance with current methods in the Blue Angel Criteria RAL-UZ 177.		
Coloured toner powder (e.g., cyan, magenta and yellow) may be mix in equal shares and hereafter analysed. Black toner powder must be analysed separately.		
Is test report(s) attached and analyse preformed according to above?		
Do the test report(s) show that the limit values are smaller or equal to listed in the table 1, 2 and 3 above?		

<sup>\*\*</sup> Derivatization with sodium tetraethyl borate, extraction with artificial sweat solution (DIN EN ISO 105-E04), determination by means of GC/MS.

<sup>\*\*\*</sup> Total of butyltin, tetrabutyltin, octyltin, dioctyltin, tricyclohexyltin and triphenyltin.

Do the test laboratory which has performed the test(s) fulfil the	requirements:		
The laboratory must be competent and impartial.		ш	ш
The laboratory must meet the general requirements of ISO 170 be an official GLP-approved laboratory.	25 standard for quality control of laboratories or		
In the event of any change to the composition of		ration	of
fulfilment of the requirements is to be submitted	d to Nordic Ecolabelling.		
Place and date:	Company name:		
	. ,		
Responsible person:	Signature of responsible person:		
Telephone:	Email:		

# Appendix 4 Declaration from the applicant: Toner cartridges -Print quality and capacity testing

OEM-	man	ufactı	ıre	or	not
------	-----	--------	-----	----	-----

	YES	NO
Are you an OEM-manufacture, who refurbish your own OEM toner cartridges?		
Print quality for toner cartridges (O8)		
	YES	NO
Do all toner cartridges in the application comply with and have been tested in line with the requirement?		
State which test standard has been used:		
Has description of test process been attached?		
Print canacity for toner cartridges (O0)		

#### Print capacity for toner cartridges (O9)

	YES	NO
Do all toner cartridges in the application comply with and have been tested in line with the requirement?		
All toner cartridge types in the application meet the requirement level* for print capacity for each cartridge type:		
State which test standard has been used:		
Has description of test process been attached?		
For OEM-manufacture:		
Are the same toner powders and spare parts used in the refurbished OEM cartridges as are used in the new manufactured OEM cartridges?		

The average value for the refurbished OEM cartridge type must not fall below -10% in the comparison as defined above. However, for OEM-manufactures the applicant may instead declare that the same toner powder and spare parts are used in the refurbished OEM cartridges as are used in the new manufactured OEM cartridges.

## Analysis laboratory and third-party (O8 and O9)

	YES	NO
Do the analysis laboratory fulfil the requirements in Appendix 1?		
An independent auditor from a third-party company must confirm that testing has been carried out in line with requirements O10 and O11. In addition, the auditor must confirm that he/she is familiar with these test methods for print quality and print capacity for refurbished OEM toner cartridges and confirms to have expertise in assessing how the applicant is applying the test methods used.  Is above confirmation from third-party company attached?		
Alternative to the above appendices: The applicant is certified under the STMC certification system. Evidence		
must be enclosed showing that the applicant has a valid STMC certificate.  Is valid STMC certificate attached?	Ш	Ш

<sup>\*</sup> Definition: Requirement level for print capacity for each cartridge type in application, in a comparison of the test results between the refurbished OEM cartridge type and the equivalent OEM cartridge type:

We declare that all cartridges in the application comply with and are tested in line with requirements O8 and O9 for toner cartridges in the criteria for Nordic Ecolabelling of Refurbished OEM Toner and Ink Cartridges generation 6.

Place and date:	Company name:
Responsible person:	Signature of responsible person:
Telephone:	Email:

# Appendix 5 Declaration from the applicant: Ink cartridges - Print quality and capacity testing

OEN	1-ma	nufact	ure	or	not
-----	------	--------	-----	----	-----

	YES	NO
Are you an OEM-manufacture, who refurbish your own OEM ink cartridges?		
Print quality for ink cartridges (O10)		
	YES	NO
Do all ink cartridges in the application comply with and have been tested in line with the requirement?		
State which test standard has been used:		
Has description of test process been attached?		

## Print capacity for ink cartridges (O11)

	YES	NO
Do all ink cartridges in the application comply with and have been tested in line with the requirement?		
All ink cartridge types in the application meet the requirement level* for print capacity for each cartridge type:		
State which test standard has been used:		
Has description of test process been attached?		
For OEM-manufacture:  Are the same inks and spare parts used in the refurbished OEM cartridges as are used in the new manufactured OEM cartridges?		

The average value for the refurbished OEM cartridge type must not fall below -10% in the comparison as defined above. However, for OEM-manufactures the applicant may instead declare that the same inks and spare parts are used in the refurbished OEM cartridges as are used in the new manufactured OEM cartridges.

## Analysis laboratory and third-party (O10 and O11)

	YES	NO
Do the analysis laboratory fulfil the requirements in Appendix 1?		
An independent auditor from a third-party company must confirm that testing has been carried out in line with requirements O10 and O11. In addition, the auditor must confirm that he/she is familiar with these test methods for print quality and print capacity for refurbished OEM ink cartridges and confirms to have expertise in assessing how the applicant is applying the test methods used.  Is above confirmation from third-party company attached?		
Alternative to the above appendices: The applicant is certified under the STMC certification system. Evidence must be enclosed showing that the applicant has a valid STMC certificate.  Is valid STMC certificate attached?		

<sup>\*</sup> Definition: Requirement level for print capacity for each cartridge type in application, in a comparison of the test results between the refurbished OEM cartridge type and the equivalent OEM cartridge type:

We declare that all ink cartridges in the application comply with and are tested in line with requirements O10 and O11 for ink cartridges in the criteria for Nordic Ecolabelling of Refurbished OEM Toner and Ink Cartridges generation 6.

Place and date:	Company name:
Responsible person:	Signature of responsible person:
Telephone:	Email:

# Appendix 6 Declaration from the applicant: Legislation and labour conventions

#### Declaration of legislation and labour conventions compliance

We hereby declare adherence to applicable patent legislation, safety regulations, working environment legislation, environmental legislation and conditions/concessions specific to the operations at all sites where the Nordic Swan Ecolabelled toner cartridge are manufactured.

We hereby declare that all sites where the Nordic Swan Ecolabelled cartridge are manufactured comply with the following ILO Conventions (The International Labour Organisation Conventions):

- Prohibition of forced labour (ILO Conventions Nos. 29 and 105)
- Prohibition of child labour (ILO Conventions Nos. 138 and 182)
- No discrimination (ILO Conventions Nos. 100 and 111)

Contact information for the regulation	ory authority for.	See appendix/appendices.	
Working environment:			
Environmental legislation:			
Site-specific terms/concessions:			
Place and date:	Company nam	e:	
Responsible person:	Signature of re	Signature of responsible person:	
Telephone:	Email:		