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Interested committees:

Title: Draft BS ISO/IEC 19752 Information technology — Office equipment — Method for the determination of toner cartridge yield for monochromatic electrophotographic printers and multi-function devices that contain printer components.

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/IEC DIS 19752

Information technology — Office equipment — Method for the determination of toner cartridge yield for monochromatic electrophotographic printers and multi-function devices that contain printer components

*Technologies de l'information — Méthode pour la détermination
du rendement des cartouches de toner pour les imprimantes
électrophotographiques monochromatiques et pour les dispositifs
multifonctionnels qui contiennent des composants d'imprimantes*

ICS: 37.100.10

ISO/IEC JTC 1/SC 28

Secretariat: JISC

Voting begins on:
2024-11-26

Voting terminates on:
2025-02-18

This document is circulated as received from the committee secretariat.

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Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives or www.iec.ch/members_experts/refdocs).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology, Subcommittee SC 28, Office equipment*.

This third edition cancels and replaces the second edition (ISO/IEC 19752:2017), which has been technically revised.

The main changes are as follows:

- Add the following in the scope: This document is not for use with printers whose minimum printable size is equal to or greater than A3 or for photo-only printers.
- Delete the word “NOTE” before the last paragraph of [4.1](#) Set-up.
- Delete the word “EXAMPLE” before the paragraph ahead of the table in [4.4](#).
- Add the following in [4.4](#): Environmental conditions shall be included in the test report. The maximum and minimum running averages for temperature and humidity shall be reported for each cartridge tested. See [Annex D](#) for a sample reporting form.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Introduction

The purpose of this document is to provide a process for determining the page yield for toner cartridges for monochromatic print systems using a standard office consumer type test page. In the case where a cartridge can be used in multiple printer models, only one yield test is performed as long as the difference between printer models does not impact yield.

A cartridge supplier can choose to use more than one market identifier for a single physical cartridge. In this case, only one yield test is required as long as there are no differences in the cartridges other than market identifiers.

This document prescribes the following:

- the test method that manufacturers, test labs, etc. use to determine cartridge yield;
- the method for determination of declared yield values from the test results;
- the appropriate method of describing the yield of cartridges in the documentation supplied to the consumer by the manufacturer.

The end of life is judged with either of the two phenomena, “image fade” caused by toner depletion of the cartridge in the printing system or “automatic printing stop” by the toner out detection function.

NOTE A comparison of yield for two printing systems is shown in [Annex E](#).

This document will be used for the measurement of one of the contributions to cost per page (CPP). This document does not directly measure CPP, only the yield of the toner cartridges. In most cases, these are not the only contributors to the CPP. It is beyond the scope of this document to provide a methodology for calculation of CPP.

Information technology — Office equipment — Method for the determination of toner cartridge yield for monochromatic electrophotographic printers and multi-function devices that contain printer components

1 Scope

This document is limited to the evaluation of toner cartridge page yield for toner containing cartridges (i.e. all-in-one toner cartridges and toner cartridges without a photoconductor) for monochrome electrophotographic print systems. This document could also be applied to the printer component of any multifunctional device that has a digital input-printing path (i.e. multi-function devices that contain printer components).

This document is only intended for the measurement of toner cartridge yield. No other claims can be made from this testing regarding quality, reliability, etc.

This document is not for use with printers whose minimum printable size is equal to or greater than A3 or for photo-only printers.

Application of this document for yield measurement of toner replenishment systems (i.e. toner cartridge- and bottle-type systems where the toner reservoir is internal to the printing system and not user-replaceable) requires some procedural modifications specifically noted herein. This document is intended for equipment used in the office space and does not apply to production volume or large format printing machines where the major cost of ownership is not caused by the consumable yield measured in this document.

NOTE An all-in-one toner cartridge is a cartridge that includes at least a toner containment part, a photoreceptor part and a developer part (see ISO/IEC 29142-1).

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1 fade

phenomenon whereby a noticeable reduction in density uniformity across the page occurs

Note 1 to entry: In this test, fade is defined as a noticeably lighter, 3 mm or greater, gap located in the text or boxes around the periphery of the test page. The determination of the change in lightness is to be made referenced to the 100th page printed for each cartridge in testing. For examples of fade, see [Annex A](#).

3.2 shake procedure

specified method to carry out shaking of a cartridge according to the user manual