



BSI Standards Publication

Textiles — Tests for colour fastness

Part A03: Grey scale for assessing staining

National foreword

This British Standard is the UK implementation of EN ISO 105-A03:2019. It is identical to ISO 105-A03:2019. It supersedes BS EN 20105-A03:1995, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee TCI/81, Colour fastness and colour measurement of textiles.

A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

Textiles - Tests for colour fastness - Part A03: Grey scale for assessing staining (ISO 105-A03:2019)

Textiles - Essais de solidité des coloris - Partie A03:
Échelle de gris pour l'évaluation des décolorations
(ISO 105-A03:2019)

Textilien - Farbechtheitsprüfungen - Teil A03:
Graumaßstab zur Bewertung des Anblutens (ISO 105-
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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

European foreword

This document (EN ISO 105-A03:2019) has been prepared by Technical Committee ISO/TC 38 "Textiles" in collaboration with Technical Committee CEN/TC 248 "Textiles and textile products" the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2020, and conflicting national standards shall be withdrawn at the latest by April 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 20105-A03:1994.

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Endorsement notice

The text of ISO 105-A03:2019 has been approved by CEN as EN ISO 105-A03:2019 without any modification.

**INTERNATIONAL
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**Textiles — Tests for colour fastness —
Part A03:
Grey scale for assessing staining**

Textiles — Essais de solidité des coloris —

Partie A03: Échelle de gris pour l'évaluation des dégorgements



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CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

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Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
Bibliography	3

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 ISO documents 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).

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 1, *Tests for coloured textiles and colorants*.

This fifth edition cancels and replaces the fourth edition (ISO 105-A03:1993), which has been technically revised. It also incorporates the Technical Corrigenda ISO 105-A03:1993/Cor.1:1997 and ISO 105-A03:1993/Cor.2:2005. The main changes compared to the previous edition are as follows:

- the use of grey and black sleeves has been allowed;
- a tolerance of ± 2 for the Y tristimulus value has been introduced.

A list of all parts in the ISO 105 series can be found on the ISO website.

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.

Textiles — Tests for colour fastness —

Part A03: Grey scale for assessing staining

1 Scope

This document describes the grey scale for determining staining of adjacent fabrics in colour fastness tests, and its use. A precise colorimetric specification of the scale is given as a permanent record against which newly prepared working standards and standards that may have changed can be compared.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/CIE 11664-1, *Colorimetry — Part 1: Standard colorimetric observers*

3 Terms and definitions

No terms and definitions are listed in this document.

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 <http://www.electropedia.org/>

4 Principle

4.1 The essential, or 5-step, scale consists of five pairs of non-glossy grey or white colour chips (or swatches of grey or white cloth), which illustrate the perceived colour differences corresponding to fastness ratings 5, 4, 3, 2 and 1. This essential scale may be augmented by the provision of similar chips or swatches illustrating the perceived colour differences corresponding to the half-step fastness ratings 4-5, 3-4, 2-3 and 1-2, such scales being termed 9-step scales. The first member of each pair is white in colour and the second member of the pair illustrating fastness rating 5 is identical with the first member. The second members of the remaining pairs are increasingly darker in colour so that each pair illustrates increasing contrasts or perceived colour differences which are defined colorimetrically. The full colorimetric specification is given below.

4.2 The chips or swatches shall be white or neutral grey in colour and shall be measured with a spectrophotometer with the specular component included. The colorimetric data shall be calculated using ISO/CIE 11664-1 (CIE 1964) supplementary standard colorimetric system (10° observer data) for illuminant D65.

4.3 The Y tristimulus value of the first member (white) of each pair shall be 85 ± 2 .