INTERNATIONAL STANDARD

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Textiles — Tests for colour fastness —

Part A04 :
Method for the instrumental assessment of the degree of staining of adjacent fabrics

Textiles — Essais de solidité des teintures —

Partie A04 : Méthode instrumentale pour l'évaluation du degré de dégorgement des tissus témoins

Reference number
ISO 105-A04:1989(E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 105-A04 was prepared by Technical Committee ISO/TC 38, *Textiles*.

ISO 105 was previously published in 13 "parts", each designated by a letter (e.g. "Part A"), with publication dates between 1978 and 1985. Each part contained a series of "sections", each designated by the respective part letter and by a two-digit serial number (e.g. "Section A01"). These sections are now being republished as separate documents, themselves designated "parts" but retaining their earlier alphanumeric designations. A complete list of these parts is given in ISO 105-A01.

International Organization for Standardization
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Textiles — Tests for colour fastness —

Part A04 :
Method for the instrumental assessment of the degree of staining of adjacent fabrics

1 Scope

This part of ISO 105 specifies an instrumental method for assessing the degree of staining of adjacent fabrics in any fastness test, as an alternative to the visual method.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 105. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 105 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 105-F10:1989, *Textiles — Tests for colour fastness — Part F10: Specification for adjacent fabric: Multifibre.*

ISO 105-J01:1989, *Textiles — Tests for colour fastness — Part J01: Measurement of colour and colour differences.*

3 Principle

The colour of an adjacent fabric which has been subjected to a fastness test in contact with the fabric under test and that of a specimen of the adjacent fabric which has been subjected to the fastness test in the absence of the fabric under test are measured. The colour difference between them is calculated in CIELAB units and converted to a staining-scale rating by means of a simple equation.

4 Apparatus

Spectrometer or **colorimeter**, capable of measuring the colour of a specimen of the size of one stripe in a multifibre adjacent fabric (see ISO 105-F10) and which irradiates the specimen with light resembling that of standard illuminant D_{65} or standard illuminant C.

5 Test specimen

Mount the adjacent fabric which has been subjected to a fastness test, together with a specimen of the adjacent fabric which has been subjected to the fastness test in the absence of the fabric under test, on non-optically-brightened white card stock.

6 Procedure

6.1 Measure the colour of the piece of adjacent fabric which has been subjected to the fastness test in the absence of the fabric under test.

6.2 Measure the colour of the adjacent fabric which has been subjected to the fastness test as part of a composite specimen. If the staining is uneven, several measurements shall be made and the arithmetic mean value employed in the calculations. If the instrument permits different viewing geometries to be used, the preferred method is to include the specular component.

6.3 Calculate the colour difference ΔE_{CIELAB} and the magnitude of the lightness difference ΔL_{CIELAB} between the adjacent fabrics, as described in 6.1 and 6.2, to two places of decimals. Either of two CIE instrument geometries may be used: