INTERNATIONAL STANDARD

ISO 105-F05

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Textiles — Tests for colour fastness —

Part F05: Specification for acrylic adjacent fabric

Textiles — Essais de solidité des teintures —

Partie F05: Spécifications pour le tissu témoin en acrylique

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 105 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 105-F05 was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 1, *Tests for coloured textiles and colorants*.

This first edition of ISO 105-F05 cancels and replaces Section F05 of the third edition of ISO 105-F:1985, which has been technically revised.

ISO 105 was previously published in thirteen “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.

Textiles — Tests for colour fastness —

Part F05:
Specification for acrylic adjacent fabric

1 Scope

This part of ISO 105 specifies an undyed acrylic adjacent fabric which may be used for the assessment of staining in colour fastness tests. The staining properties of the acrylic adjacent fabric under test are assessed against an acrylic reference adjacent fabric, using an acrylic dyed reference fabric, both of which are available from a specified source.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 105. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 105 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 105-A02:1993, *Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour*.

ISO 105-J01:1997, *Textiles — Tests for colour fastness — Part J01: General principles for measurement of surface colour*.

ISO 105-J02:1997, *Textiles — Tests for colour fastness — Part J02: Instrumental assessment of relative whiteness*.

ISO 105-P02:1993, *Textiles — Tests for colour fastness — Part P02: Colour fastness to pleating: Steam pleating*.

ISO 3071:1980, *Textiles — Determination of pH of the aqueous extract*.

ISO 3801:1977, *Textiles — Woven fabrics — Determination of mass per unit length and mass per unit area*.

3 Materials

3.1 Acrylic adjacent fabric under test, in accordance with the requirements in clause 4.

3.2 Acrylic reference adjacent fabric, in accordance with the requirements in clause 4.

3.3 Acrylic dyed reference fabric, in accordance with the requirements in clause 4, and dyed with C.I. Basic Green 4.

NOTE Contact AATCC, One Davis Drive, P.O. Box 12215, Research Triangle Park, NC 27709-2215, U.S.A., for sources of supply for reference adjacent fabrics and for dyed reference fabrics.

4 Specification for acrylic adjacent fabric

The fabric shall have the following properties.

Mass per unit area: (135 ± 5) g/m^2 determined in accordance with ISO 3801.

Whiteness value: $Y_{10} = 86 \pm 2$

$W_{10} = 67 \pm 2$

$T_{10} = 1 \pm 1$ (i.e. 0 to 2)

Measurements shall be made with specular included in accordance with ISO 105-J01, excluding 0/45 (45/0). Luminance (Y_{10}), Whiteness (W_{10}) and Tint (T_{10}) values shall be calculated using CIE standard illuminant D_{65} and CIE 1964 supplementary standard colorimetric observer (10° observer) in accordance with ISO 105-J02.

The pH of the aqueous extract shall be 7 ± 0,5 when determined by the method described in ISO 3071.

NOTE Information about the production of acrylic adjacent fabric and acrylic dyed reference fabric is held in a report by the co-secretariats of ISO/TC 38/SC 1.

5 Assessment of staining properties of acrylic adjacent fabric under test

5.1 General

As adjacent fabrics are required to yield reproducible results when used in colour fastness tests, their most important property is standardized staining characteristics. The staining characteristics of acrylic adjacent fabric under test shall conform to those of the acrylic reference adjacent fabric when tested using the acrylic dyed reference fabric.

5.2 Test procedure

Place an acrylic dyed reference fabric (3.3) between the acrylic adjacent fabric under test (3.1) and the acrylic reference adjacent fabric (3.2). To eliminate possible differences in test conditions, use both the acrylic adjacent fabric under test and the acrylic reference adjacent fabric in the same composite specimen. Test the specimen according to ISO 105-P02, intermediate test: (115 °C for 10 min at 170 kPa).

5.3 Performance requirements

The colour difference between the stain on the acrylic adjacent fabric under test and the stain on the acrylic reference adjacent fabric shall not be greater than 4-5 when evaluated using the grey scale for assessing change in colour, in accordance with ISO 105-A02.

Bibliography

[1] ISO 105-A01:1994, *Textiles — Tests for colour fastness — Part A01: General principles of testing*.

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