INTERNATIONAL STANDARD

**ISO 105-F06**

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# Textiles — Tests for colour fastness —

## Part F06: Specification for silk adjacent fabric

*Textiles — Essais de solidité des teintures —*

*Partie F06: Spécification pour le tissu témoin en soie*

Reference number
ISO 105-F06:2000(E)

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## Foreword

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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-F06 was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 1, *Tests for coloured textiles and colorants*.

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 F06:
# Specification for silk adjacent fabric

## 1 Scope

This part of ISO 105 specifies an undyed silk adjacent fabric which may be used for the assessment of staining in colour fastness tests. The staining properties of the silk adjacent fabric under test are assessed against a silk reference adjacent fabric, using a silk 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-E01:1994, *Textiles — Tests for colour fastness — Part E01: Colour fastness to water.*

ISO 105-F02:—[1)], *Textiles — Tests for colour fastness — Part F02: Specification for reference adjacent fabrics: Cotton and viscose.*

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

ISO 3072:1975, *Wool — Determination of solubility in alkali.*

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

1) To be published.

## 3 Materials

**3.1 Silk adjacent fabric under test,** complying with the requirements of clause 4.

**3.2 Silk reference adjacent fabric,** complying with the requirements of clause 4.

**3.3 Silk dyed reference fabric,** complying with the requirements of clause 4 and dyed with C.I. Acid Blue 59.

**3.4 Cotton dyed reference fabric,** complying with ISO 105-F02 but dyed with C.I. Direct Red 79.

NOTE Silk reference adjacent fabric, silk dyed reference fabric and cotton dyed reference fabric are only available from Japanese Standards Association, 1-24 Akasaka 4 Chome, Minato-ku, Tokyo 107, Japan.

## 4 Specification for the silk adjacent fabric

The fabric shall have the following properties:

Mass per unit area: (60 ± 3) g/m$^2$ determined in accordance with ISO 3801.

Whiteness value:

$Y_{10}$ = 91 ± 2

$W_{10}$ = 79 ± 3

$T_{10}$ = – 1 ± 1 (i.e. – 2 to 0)

Measurements shall be made using the instrument geometry d/0, specular included, in accordance with ISO 105-J01. 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 7,8 ± 0,5 when determined by the method described in ISO 3071.

The residual matter, after extraction with diethyl ether, shall not exceed 0,5 %.

The alkali solubility shall not exceed 19 % (*m*/*m*) when determined by the method described in ISO 3072, using 16 g/l sodium hydroxide instead of 0,1 mol/l sodium hydroxide as stated in the method.

NOTE Information about the production of the silk reference adjacent fabric, silk dyed reference fabric and cotton dyed reference fabric is held in a report by the co-secretariats of ISO/TC38/SC1.

## 5 Assessment of staining properties of the silk 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 the silk adjacent fabric under test shall conform to those of the silk reference adjacent fabric when tested using the silk dyed reference fabric (3.3) and the cotton dyed reference fabric (3.4) separately.

## 5.2 Test procedure

Place a silk dyed reference fabric (3.3) between the silk adjacent fabric under test (3.1) and the silk reference adjacent fabric (3.2). To eliminate possible differences in test conditions, use both the silk adjacent fabric under test and the silk reference adjacent fabric in the same composite specimen. Test the specimen according to ISO 105-E01.

Repeat the test using the cotton dyed reference fabric (3.4) in place of the silk dyed reference fabric (3.3).

## 5.3 Performance requirements

For both tests performed as in 5.2, the colour difference between the stain of the silk adjacent fabric under test and the stain of the silk 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.*

[2] ISO/CIE 10526:1999, *CIE standard illuminants for colorimetry.*

[3] ISO/CIE 10527:1991, *CIE standard colorimetric observers.*

[4] CIE Publication No. 15.2, *Colorimetry*, 2nd ed., 1986.

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