

INTERNATIONAL
STANDARD

ISO
105-B04

Fourth edition
1994-11-15

Textiles — Tests for colour fastness —

Part B04:

Colour fastness to artificial weathering: Xenon
arc fading lamp test

Textiles — Essais de solidité des teintures —

*Partie B04: Solidité des teintures aux intempéries artificielles: Lampe à arc
au xénon*



Reference number
ISO 105-B04:1994(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 voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 105-B04 was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 1, *Tests for coloured textiles and colorants*.

This fourth edition cancels and replaces the third edition (ISO 105-B04:1988), of which it constitutes a technical revision.

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.

Annexes A and B of this part of ISO 105 are for information only.

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International Organization for Standardization
Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Textiles — Tests for colour fastness —

Part B04:

Colour fastness to artificial weathering: Xenon arc fading lamp test

1 Scope

This part of ISO 105 specifies a method intended for determining the resistance of the colour of textiles of all kinds, except loose fibres, to the action of weather as determined by exposure to simulated weathering conditions in a cabinet equipped with a xenon arc lamp.

This method can be used to determine if a textile is wet light-sensitive.

NOTE 1 General information on colour fastness to light is given in annex A.

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-A01:1994, *Textiles — Tests for colour fastness — Part A01: General principles of testing.*

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

ISO 105-B01:1994, *Textiles — Tests for colour fastness — Part B01: Colour fastness to light: Daylight.*

ISO 105-B02:1994, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test.*

3 Principle

Specimens of the textile are exposed under specified conditions to light from a xenon arc lamp and to water spray. At the same time, eight dyed blue wool references are exposed to light but are protected from water spray by a sheet of window-glass. The fastness is assessed by comparing the change in colour of the specimen with that of the references.

If the method is used to determine if a textile is wet light-sensitive (see 4.3.1), the simultaneous exposure of references is unnecessary. In this case the assessment is performed by comparison with the grey scale in accordance with ISO 105-A02.

4 Reference materials and apparatus

4.1 Blue wool references

The reference materials used in this test are those blue wool references specified in ISO 105-A01 and ISO 105-A02, and subclause 4.1.1 of ISO B01:1994.

4.2 Apparatus

4.2.1 Xenon arc lamp apparatus.

4.2.1.1 Light source, in a well-ventilated exposure chamber. The light source is a xenon arc lamp of correlated colour temperature 5 500 K to 6 500 K.