International Standard

ISO 105-B04

Textiles — Tests for colour fastness —

Part B04: Colour fastness to artificial weathering: Xenon arc fading lamp test

Textiles — Essais de solidité des coloris —

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

Fifth edition
2024-03

Reference number
ISO 105-B04:2024(en)

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Published in Switzerland

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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.

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 document 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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For an explanation of 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 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*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 248, *Textiles and textile products,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition cancels and replaces the fourth edition (ISO 105-B04:1994), which has been technically revised.

The main changes are as follows:

— the Scope has been refined to differentiate this document from ISO 105-B10;

— the description of the test apparatus has been harmonized with ISO 105-B10. This takes into account current technology, but does not discredit the test procedure described in this document;

— Type I and Type II daylight filters for xenon-arc lamps have 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.

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Introduction

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.

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Textiles — Tests for colour fastness —

Part B04:
Colour fastness to artificial weathering: Xenon arc fading lamp test

1 Scope

This document specifies a method intended for determining the effect on 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 test chamber equipped with a xenon arc lamp. This document focuses on textiles (such as apparel) where the main evaluation criterium is the colour fastness.

This method can be used to determine if a textile is sensitive to the combined effect of light and water.

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

NOTE 2 ISO 105-B10 provides guidance on testing textiles or technical textiles, which are permanently exposed to an outdoor environment and/or require mechanical testing (such as tensile strength determination).

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

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

ISO 105-A05, *Textiles — Tests for colour fastness — Part A05: Instrumental assessment of change in colour for determination of grey scale rating*

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

ISO 105-B02:2014, *Textiles — Tests for colour fastness — Part B02: Colour fastness to artificial light: Xenon arc fading lamp test*

ISO 105-B08, *Textiles — Tests for colour fastness — Part B08: Quality control of blue wool reference materials 1 to 7*

ISO 4892-1, *Plastics — Methods of exposure to laboratory light sources — Part 1: General guidance*

ISO 9370, *Plastics — Instrumental determination of radiant exposure in weathering tests — General guidance and basic test method*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 105-B02 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

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