STANDARD **105-G03**

Second edition
1993-10-01

Textiles — Tests for colour fastness —

Part G03:
Colour fastness to ozone in the atmosphere

Textiles — Essais de solidité des teintures —
Partie G03: Solidité des teintures à l'ozone dans l'atmosphère

Reference number
ISO 105-G03:1993(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-G03 was prepared by Technical Committee ISO/TC 38, *Textiles*, Sub-Committee SC 1, *Tests for coloured textiles and colorants*.

This second edition cancels and replaces the first edition (included in ISO 105-G:1978), of which it constitutes a minor 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 form an integral part of this part of ISO 105. Annex C is for information only.

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Case Postale 56 • CH-1211 Genève 20 • Switzerland

Printed in Switzerland

Textiles — Tests for colour fastness —

Part G03:
Colour fastness to ozone in the atmosphere

1 Scope

This part of ISO 105 specifies a method for determining the resistance of the colour of textiles of all kinds and in all forms to the action of ozone in the atmosphere, both at ambient room temperatures with relative humidities not exceeding 65 % and at elevated temperatures with relative humidities above 80 %.

NOTE 1 If a sample shows sensitivity to this test, it should also be tested for sensitivity to the tests specified in ISO 105-G01 (colour fastness to nitrogen oxides) and ISO 105-G02 (colour fastness to burnt-gas fumes).

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-A01:1989, *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-F:1985, *Textiles — Tests for colour fastness — Part F: Standard adjacent fabrics.*

3 Principle

3.1 A specimen and a swatch of test-control fabric are simultaneously exposed to ozone, in an atmosphere at ambient room temperature and a relative humidity not exceeding 65 %, until the test control shows a colour change corresponding to that of a standard of fading. This exposure period constitutes one cycle. The cycles are repeated until the specimen shows a definite colour change or for a prescribed number of cycles.

3.2 A specimen and a swatch of test-control fabric are simultaneously exposed to ozone in an atmosphere which is maintained at (85 ± 5) % relative humidity and a temperature of 40 °C ± 5 °C until the test control shows a colour change corresponding to that of a standard of fading. The cycle is repeated until the specimen shows a definite colour change or for a prescribed number of cycles.

NOTE 2 The fading of dyes on certain fibres does not readily take place at humidities below 80 %. The test at high humidity is therefore required to produce a colour change that predicts service fading under warm, humid conditions.

4 Apparatus and materials

4.1 Ozone exposure chamber for ambient room temperatures and relative humidities not exceeding 65 % (see A.1).