STANDARD **105-N01**

Second edition
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# Textiles — Tests for colour fastness —

# Part N01:
Colour fastness to bleaching: Hypochlorite

*Textiles — Essais de solidité des teintures —*
*Partie N01: Solidité des teintures au blanchiment: Hypochlorite*


Reference number
ISO 105-N01:1993(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-N01 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-N: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.



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# Textiles — Tests for colour fastness —

# Part N01:
Colour fastness to bleaching: Hypochlorite

## 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 bleaching baths containing sodium or lithium hypochlorite in concentrations normally used in commercial bleaching. It is applicable mainly to natural and regenerated cellulose materials.

## 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-C01:1989, *Textiles — Tests for colour fastness — Part C01: Colour fastness to washing: Test 1.*

## 3 Principle

A specimen of the textile is agitated in a solution of sodium or lithium hypochlorite, rinsed in water, agitated in a hydrogen peroxide solution or sodium hydrogen sulfite solution, rinsed and dried. The change in colour is assessed with the grey scale.

## 4 Apparatus and reagents

**4.1 Glass or glazed-porcelain container**, which can be closed, for specimen and bleaching solution.

**4.2 Hypochlorite solutions.**

Use one of the two solutions specified in 4.2.1 and 4.2.2.

**4.2.1 Sodium hypochlorite (NaOCl) solution**, containing approximately 2 g of available chlorine per litre, buffered at pH 11 ± 0,2 with 10 g of anhydrous sodium carbonate ($Na_2CO_3$) per litre, at a temperature of 20 °C ± 2 °C.

To prepare this reagent, use commercially available sodium hypochlorite solution. This has the following composition:

— active chlorine: 140 g/l to 160 g/l;

— sodium chloride: (NaCl): 120 g/l to 170 g/l;

— sodium hydroxide: (NaOH): 20 g/l maximum;

— sodium carbonate ($Na_2CO_3$): 20 g/l maximum;

— iron (Fe): 0,01 g/l maximum.

Dilute 20,0 ml of the commercially available sodium hypochlorite solution to 1 litre with grade 3 water (4.6).