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**Textiles — Tests for colour fastness —  
Part X12:  
Colour fastness to rubbing**

*Textiles — Essais de solidité des coloris —  
Partie X12: Solidité des coloris au frottement*

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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 documents 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](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 38, *Textiles*, Subcommittee SC 1, *Tests for coloured textiles and colorants*.

This sixth edition cancels and replaces the fifth edition (ISO 105-X12:2001), of which it constitutes a minor revision to refer to standard atmosphere as defined in ISO 139.

ISO 105 consists of many parts designated by a part letter and a two-digit serial number (e.g. A01), under the general title *Textiles — Tests for colour fastness*. A complete list of these parts is given in ISO 105-A01.

# Textiles — Tests for colour fastness —

## Part X12: Colour fastness to rubbing

### 1 Scope

This part of ISO 105 specifies a method for determining the resistance of the colour of textiles of all kinds, including textile floor coverings and other pile fabrics, to rubbing off and staining other materials.

The method is applicable to textiles made from all kinds of fibres in the form of yarn or fabric, including textile floor coverings, whether dyed or printed.

Two tests may be made, one with a dry rubbing cloth and one with a wet rubbing cloth.

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 105-A01:2010, *Textiles — Tests for colour fastness — Part A01: General principles of testing*

ISO 105-A03, *Textiles — Tests for colour fastness — Part A03: Grey scale for assessing staining*

ISO 105-F09, *Textiles — Tests for colour fastness — Part F09: Specification for cotton rubbing cloth*

ISO 139, *Textiles — Standard atmospheres for conditioning and testing*

### 3 Principle

Specimens of the textile are rubbed with a dry rubbing cloth and with a wet rubbing cloth. The machine provides two combinations of testing conditions through two alternative sizes of rubbing finger: one for pile fabrics and one for solid colour or large print fabrics.

### 4 Apparatus

**4.1 Suitable testing device for determining the colour fastness to rubbing**, using a reciprocating straight line rubbing motion and two alternative sizes of rubbing fingers.

**4.1.1** For pile fabrics, including textile floor coverings: rubbing finger with a rectangular rubbing surface with the lead edge rounded measuring 19 mm × 25,4 mm (crock block).

The rubbing finger shall exert a downward force of  $(9 \pm 0,2)$  N, moving to and fro in a straight line along a  $(104 \pm 3)$  mm track.

NOTE 1 Difficulty might be experienced in making assessments of the degree of staining on the rubbing cloth when pile fabrics are tested using the  $(16 \pm 0,1)$  mm diameter rubbing finger due to heavier staining occurring on the circumference of the stained area, i.e. haloing. The rubbing finger described in 4.1.1 will eliminate the haloing with many types of pile fabrics.