## INTERNATIONAL STANDARD

Fourth edition 2009-05-15

# Textiles — Test method for assessing the appearance of creases in fabrics after cleansing

*Textiles — Méthode d'essai pour l'évaluation de l'aspect des plis des étoffes après nettoyage* 

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

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.

ISO 7769 was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 2, *Cleansing, finishing and water resistance tests*.

This fourth edition cancels and replaces the third edition (ISO 7769:2006), of which it constitutes a minor revision. It incorporates ISO 7769:2006/DAmd.1:2008 to add Annex B (informative).

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## Textiles — Test method for assessing the appearance of creases in fabrics after cleansing

#### 1 Scope

This International Standard specifies a test method for evaluating the retention of pressed-in creases in fabrics after one or several cleansing treatments. A technique for inserting creases is not included as this is controlled by fabric properties.

This method has been developed for use primarily with type B domestic washing machines, as defined in ISO 6330, in the cleansing process. However, it may be possible to use it with type A machines, as defined in the same International Standard.

#### 2 Normative references

The following referenced documents are indispensable for the application 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 **ICS.Iten.al**)

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

ISO 139, Textiles — Standard atmospheres for conditioning and testing

ISO 3175 (all parts), Textiles — Professional care, drycleaning and wetcleaning of fabrics and garments

ISO 6330, Textiles — Domestic washing and drying procedures for textile testing

#### 3 Principle

**3.1** Creased fabric specimens are subjected to procedures simulating cleansing practices. One of the domestic washing and drying procedures specified in ISO 6330 or one of the professional procedures specified in the series of ISO 3175 is used, as agreed between the interested parties.

**3.2** Evaluation is performed by supplementing the overhead lighting arrangement with a spotlight suitably placed to highlight the creased area. The specimens are compared visually with plastic crease replicas under specified illumination.

#### 4 Apparatus

**4.1 Washing and drying apparatus**, as specified in ISO 6330, or **professional care apparatus**, as specified in ISO 3175.

**4.2 Steam** or **dry iron**, with appropriate fabric temperature settings.

#### 4.3 Lighting.

The evaluation area shall be a darkened room, using the lighting arrangement shown in Figures 1 and 2 and comprising the following items. Lamp dimensions should be chosen to extend beyond the overall surface of a test specimen and replicas, when used for the assessment.

**4.3.1** Two CW (cool white) fluorescent lamps, without baffle or glass, a minimum of 2 m in length each, placed side by side.

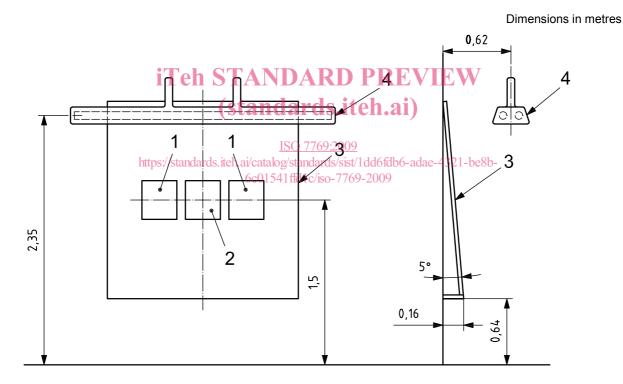
4.3.2 One white enamel reflector, without baffle or glass.

**4.3.3 One thick plywood viewing board**, painted grey to the match No. 2 rating on the grey scale for assessing staining specified in ISO 105-A03.

**4.3.4** One 500 W reflector flood lamp and lightshield (for the purpose of protecting the viewer's eyes from direct light as illustrated in Figure 2).

**4.4 Plastic crease replicas**, prepared for evaluating creases, as shown in Figure 3<sup>1)</sup>.

NOTE A digital description of the ISO crease replicas is given in Annex B.



Key

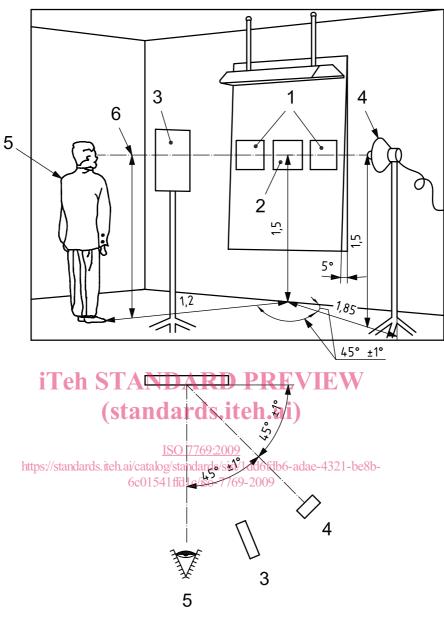
- 1 replica
- 2 test specimen
- 3 board for viewing
- 4 example of fluorescent lamp placement

#### Figure 1 — Lighting equipment for viewing test specimens

<sup>1)</sup> The replicas shown in Figure 3 are for illustration purposes only. These replicas may be obtained from AATCC Technical Center, One Davis Drive, P.O. Box 12215, Research Triangle Park, North Carolina 27709-2215, USA; Tel: +1 919-549-8141; Fax: +1 919-549-8933; <u>http://www.aatcc.org</u>. This information is given for the convenience of users of this document and does not constitute an endorsement by ISO of the product named. Equivalent products may be used if they can be shown to lead to the same results.

#### ISO 7769:2009(E)

Dimensions in metres



#### Key

- 1 replica
- 2 test specimen
- 3 light shield
- 4 500 W reflector flood lamp
- 5 observer
- 6 arbitrary eye level

#### Figure 2 — Lighting and viewing arrangement



Figure 3 — Plastic crease replicas

#### 5 Test specimens

Prepare three test specimens, each measuring  $38 \text{ cm} \times 38 \text{ cm}$  and pinked to prevent fraying, each with a press-in crease through the middle. If the fabric is wrinkled, it may be smoothed by appropriate ironing prior to testing. Care shall be taken to avoid altering the quality of the crease itself.

#### 6 Procedure

**6.1** Treat each specimen according to one of the procedures specified in ISO 6330 or ISO 3175, as agreed between the interested parties.

6.2 If required, repeat the selected treatment four times to give a total of five cycles.

**6.3** Condition the test specimens for a minimum of 4 h and maximum of 24 h, according to ISO 139, by hanging each specimen by two corners with the crease vertical or, alternatively, using full-width clamps.

6.4 For the evaluation, carry out steps 6.4.1 to 6.4.5.

**6.4.1** Three observers shall rate each treated test specimen independently, as follows.

**6.4.2** Mount the test specimen on the viewing board (4.3.3) as illustrated in Figure 1, with the crease in the vertical direction, taking care not to distort the crease. Place the plastic crease replicas (4.4) alongside to facilitate comparative rating. Place the most similar plastic crease replicas on each side of the test specimen. Mount replicas 1, 3 or 5 on the left and 2 or 4 on the right.

**6.4.3** The observer shall stand directly in front of the specimen, 1,2 m away from the viewing board. It has been found that normal variations in the height of the observer above and below the arbitrary 1,5 m eye level have no significant effect on the rating given.

The overhead fluorescent light (4.3.1) and the side flood light shall be the only light source for the viewing board, and all other lights in the room shall be turned off. It has been the experience of many observers that the light reflected from the side walls near the viewing board can interfere with the rating results. It is recommended that the side walls be painted black or that blackout curtains be mounted on either side of the viewing board to eliminate the reflective interference.

6.4.4 Compare the retention of the specimen crease with the plastic crease replicas (see Figure 3), using the prescribed lighting arrangement in a darkened room as shown in Figures 1 and 2. Assign the number of the plastic crease replica that most nearly matches the appearance of the specimen crease (see Figure 3 and Table 1), or assign ratings midway between those whole-number standards, if the appearance of the specimens warrants it.

Class	Crease appearance
<sup>5</sup> iTe	Equivalent to Standard CR-5 PREVIEW
4,5	Midway between Standard CR-4 and CR-5
4	Equivalent to Standard CR-4
3,5	Midway between Standard CR-4
l <del>g</del> tps://stan	Equivalent to Standard R-351/1dd6fdb6-adae-4321-be8b-
2,5	6c01541Hd1c/iso-7769-2009 Midway between Standard CR-2 and CR-3
2	Equivalent to Standard CR-2
1,5	Midway between Standard CR-1 and CR-2
1	Equivalent to or worse than Standard CR-1

**6.4.5** Similarly, the observer shall independently rate each of the other two test specimens. The other two observers shall proceed in the same manner, assigning ratings independently.

#### 7 Expression of results

Average the nine observations made by the three observers on the set of three test specimens. Report the average to the nearest half of a rating.

#### 8 Test report

The test report shall include the following information:

- a) a reference to this International Standard (ISO 7769:2009);
- b) details of the sample evaluated;