



**International
Standard**

ISO 16847

**Textiles — Test method for
assessing the matting appearance of
napped fabrics after cleansing**

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

**Second edition
2025-02**

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Foreword

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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 2, *Cleansing, finishing and water resistance tests*.

This second edition cancels and replaces the first edition (ISO 16847:2016), which has been technically revised.

The main changes are as follows:

- the definition of “napped fabric” ([3.1](#)) has been added (and the former 3.1 has been renumbered as [3.2](#));
- a new subclause [7.11](#) has been added to introduce the possibility of using photographic rating standards;
- in [Clause 9](#), the test report has been updated, including the introduction of the possibility to use photographic rating standards in items e) and h).

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.

Introduction

With use, the surface of napped fabrics changes significantly. This change in appearance, known as matting, is more or less severe and is related to the fibre, fabric or finishing characteristics.

Based on the structure of other ISO standards dealing with the change in appearance after cleansing, this document has been elaborated to solve this situation.

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Textiles — Test method for assessing the matting appearance of napped fabrics after cleansing

1 Scope

This document specifies a method for assessing the matting appearance of the napped fabrics (fleece fabrics) tested, after one or several cleansing treatments.

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 is possible to use it with Type A machines, as defined in ISO 6330. This test method can be used for judging matting appearance after other cleansing processes.

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-A03, *Textiles — Tests for colour fastness — Part 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*

ISO 15797, *Textiles — Industrial washing and finishing procedures for testing of workwear*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

- ISO Online browsing platform: available at <https://www.iso.org/obp/ui/>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

napped fabric

fabric with raised surface of fibres on one or both sides of it

EXAMPLE Fleece fabric, fake fur, velvet, suede, flannel.

Note 1 to entry: Raised fibres are often referred to as “nap”.

3.2

matting

disorientation of the raised fibres of a *napped fabric* (3.1), which produces a visible surface change

Note 1 to entry: See [Figure 1](#).



Figure 1 — Example of matting appearance of napped fabric

4 Principle

Fabric test specimens are subjected to procedures simulating cleansing practices. One of the domestic washing and drying procedures specified in ISO 6330, one of the professional procedures specified in the ISO 3175 series, or one of the industrial procedures as specified in ISO 15797 is used, as agreed between the interested parties. If the interested parties decide that other cleansing processes are to be used, this fact shall be reported.

5 Apparatus

5.1 Washing and drying apparatus, as specified in ISO 6330, professional care apparatus, as specified in the ISO 3175 series or industrial laundering apparatus as specified in ISO 15797.

5.2 Lighting

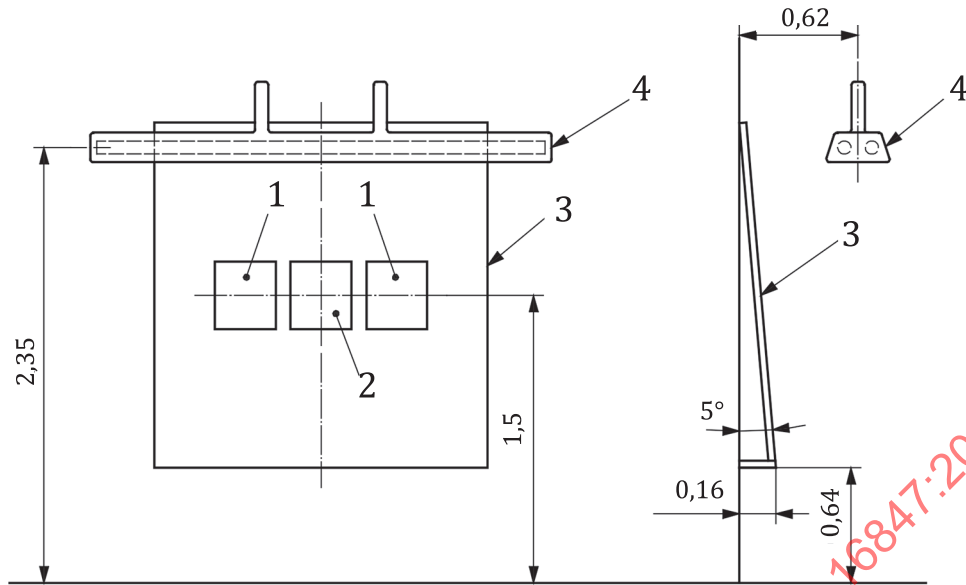
The evaluation area shall be a darkened room, using the overhead lighting arrangement shown in [Figure 2](#) and comprising the following items. Lamp dimensions should be chosen to extend beyond the overall surface of a test specimen and replicas, when used for the assessment.

5.2.1 Two CW (cool white) fluorescent tube lamps, placed side by side, without baffle or glass, with a length of each greater than the viewing board ([5.4](#)).

5.2.2 One white enamel reflector, without baffle or glass.

5.3 One test specimen holder (for example, clips).

5.4 One thick plywood viewing board, painted grey to match the grade 2 on the grey scale for assessing staining specified in ISO 105-A03.

**Key**

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

Figure 2 — Lighting equipment for viewing test specimens

6 Test specimens

Prepare three test specimens, each measuring 38 cm × 38 cm, cut parallel to the length direction (machine direction), pinked to prevent fraying and marked to indicate the length direction (machine direction). Other means to prevent fraying can be used provided that the same results are obtained.

If the matting appearance shall be assessed on both faces, mark the front face.

7 Procedure

7.1 Treat each test specimen according to one of the cleansing procedures specified in ISO 6330, the ISO 3175 series or ISO 15797, as agreed between the interested parties.

7.2 If required, repeat the selected treatment four times, to give a total of five cycles (one cycle consists of one washing and one drying).

7.3 Condition the test specimens in the standard atmosphere in accordance with ISO 139 for a minimum of 4 h by hanging each test specimen unfolded with the length direction (machine direction) vertical to avoid distortion.

7.4 Mount the test specimen on the viewing board (5.4) as illustrated in Figure 2, with the length direction (machine direction) vertical. If the matting appearance shall be assessed on both faces, proceed to 7.4 to 7.11 with the marked front faces, and then repeat 7.4 to 7.11 with the other face.

7.5 The overhead fluorescent light (5.2.1) 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