
**Textiles — Tests for colour fastness —
Part E07:
Colour fastness to spotting: Water**

Textiles — Essais de solidité des coloris —

Partie E07: Solidité des coloris à la goutte d'eau



Reference number
ISO 105-E07:2010(E)

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Foreword

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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 105-E07 was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 1, *Tests for coloured textiles and colorants*.

This fourth edition cancels and replaces the third edition (ISO 105-E07:1989), of which Clauses 2 and 5 have been technically revised and instrumental measurement added to the appropriate clauses. It also incorporates ISO 105-E07:1989/Cor.1:2002.

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.

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Textiles — Tests for colour fastness —

Part E07: Colour fastness to spotting: Water

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 spotting by water.

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.

ISO 105-A02, *Textiles — Tests for colour fastness — Part A02: Grey scale for assessing change in colour*

ISO 105-A05, *Textiles — Tests for colour fastness — Part A05: Instrumental assessment of change in colour for determination of grey scale rating*

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

3 Principle

Drops of water are worked into the specimen with a glass rod, and the change in colour of the textile is assessed with the grey scale or instrumentally after 2 min and after drying.

4 Apparatus

- 4.1 **Pipette or dropper.**
- 4.2 **Glass rod**, with a rounded end.
- 4.3 **Grey scale for assessing change in colour**, complying with ISO 105-A02.
- 4.4 **Spectrophotometer or colorimeter for assessing change in colour**, complying with ISO 105-A05.

5 Reagents

- 5.1 **Grade 3 water**, complying with ISO 3696.

6 Test specimen

6.1 If the textile to be tested is fabric, use a specimen measuring (40 ± 2) mm \times (100 ± 2) mm.

6.2 If the textile to be tested is yarn, knit it into fabric and use a specimen measuring (40 ± 2) mm \times (100 ± 2) mm, or make a wick of parallel lengths (100 ± 2) mm long and about (5 ± 2) mm in diameter, tied near both ends.

6.3 If the textile to be tested is loose fibre, comb and compress enough of it to form a sheet measuring (40 ± 2) mm \times (100 ± 2) mm.

7 Procedure

7.1 Spot the specimen at room temperature with grade 3 water (5.1) so that, after working the water into the specimen with the glass rod, a spot of diameter approximately 20 mm is formed. In the case of water-repellent fabrics, the amount of water shall not exceed 0,5 ml.

7.2 After 2 min, assess the change in colour in the periphery of the spot with the grey scale (4.3) and/or instrumentally (see 4.4).

7.3 Dry the specimen in air at room temperature and again assess the change in colour with the grey scale (4.3) and/or instrumentally (see 4.4).

8 Test report

The test report shall include the following information:

- a) a reference to this part of ISO 105 (ISO 105-E07:2010);
- b) all details necessary for the identification of the sample tested;
- c) the numerical grey scale rating and/or instrumental assessment for the change in colour of the specimen after 2 min and after drying;
- d) any deviation, by agreement or otherwise, from the procedure specified.

Bibliography

- [1] ISO 105-A01, *Textiles — Tests for colour fastness — Part A01: General principles of testing*
- [2] ISO 105-J01, *Textiles — Tests for colour fastness — Part J01: General principles for measurement of surface colour*
- [3] ISO 105-J03, *Textiles — Tests for colour fastness — Part J03: Calculation of colour differences*
- [4] AATCC TM 104, *Colorfastness to Water Spotting*

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