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Textiles — Tests for colour fastness —

Part C12: Colour fastness to industrial laundering

Textiles — Essais de solidité des teintures coloris —

Partie C12: Solidité des teintures coloris au lavage industriel

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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 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 1, *Tests for coloured textiles and colorants*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 248, *Textiles and textile products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 105-C12:2004) and its corrigendum (ISO 105-C12:2004/Cor 1:2007), which has been technically revised.

The main changes are as follows:

- ISO 105-F:1985 was withdrawn and the test conditions of industrial laundering are seldom used for the fabrics mainly made of delicate fibres (for example silk or wool), therefore ISO 105-C12:2004/Cor 1:2007 has not been suitable to be incorporated into this method;
- addition of ISO 3696 and replacement of ISO 105-A01:1994 with ISO 105-A01 in [Clause 2](#); [Clause 2](#);
- revision of [Clause 4](#) title from “Reagents” to “Reagents and materials” in [Clause 5](#) (Former [Clause 4](#));
- addition of “Other suitable detergent can be used if agreed upon between interested parties.” in [5.1](#) in [5.1](#) (former 4.1);
- clarification that 30 % is mass fraction in [5.3.3](#) (former 4.3);

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- addition of sodium percarbonate as an optional reagent in ~~5.6, 8.1.3, Table 1~~ ~~5.6, 8.1.3, Table 1~~ and ~~A.1~~ ~~A.1~~ (former 4.6, 7.1.3, Table 1 and A.1);
- replacement of “see 8.2 of ISO A01:1994” with “in accordance with ISO 3696” in ~~5.7~~ ~~5.7~~ (former 4.7);
- movement of “Adjacent fabrics” and “Grey scales” to the ~~Clause~~ ~~clause~~ “Reagent and materials”;
- addition of the statement “using either a multifibre adjacent fabric or two single-fibre adjacent fabrics as specified in ISO 105-A01.” ~~in 5.8~~ ~~in 5.8~~ (former 5.4);
- deletion of “Condition the sample for 24-h before assessing to allow for temporary colour change caused by heat.” in 6.6 (former 5.6);
- addition of “Balance, with a resolution of 0,01-g.” in ~~Clause 6~~ ~~Clause 6~~ (former Clause 5);
- addition of the dimension of the multifibre TV adjacent fabric as “80-mm ~~x~~ ~~x~~ 100-mm” in ~~7.2~~ ~~7.2~~ (former 6.2);
- revision of ~~Figure 1~~ ~~Figure 1~~;
- replacement of “mixer” with “mechanical stirrer” in ~~8.1~~ ~~8.1~~ (former 7.1);
- replacement of “running tap water for 10-min” with “running tap water until being clean” and addition of a NOTE to check the cleanness degree of the rinsed test specimen in ~~8.2~~ ~~8.2~~ (former 7.2);
- revision of the requirement for conditioning the test specimen in ~~8.2~~ ~~8.2~~ (former 7.2);
- improvement of the contents in Test report;
- revision of ~~Annex A~~ ~~Annex A~~ from “informative” to “normative”;
- improvement of the ~~Formula (A.1)~~ ~~Formula (A.1)~~;
- updating of the bibliographies.

A list of all parts in the ISO 105 series can be found on the ISO website.

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.

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Introduction

The test method in this document is intended to reflect the effect of comprehensive laundering during industrial laundry procedures, as distinct from the domestic washing test methods as given in ISO 105-C06, ISO 105-C08 and ISO 105-C10. Four test conditions are described, one at (92 ± 2) °C intended for the evaluation of workwear and three, as given below, at (75 ± 2) °C, for the evaluation of bed and table linen and corporate wear:

- without the addition of peroxy bleach compounds;
- with the addition of hydrogen peroxide (for the bleaching of white work with coloured trimmings);
- with the addition of sodium perborate tetrahydrate (or sodium percarbonate) and tetraacetylene diamine (TAED) (for the bleaching of white work with coloured trimmings).

NOTE— The addition of TAED/perborate (or percarbonate) is a conveniently stable way of producing peracetic acid in situ.

This ~~test~~ method ~~of test~~ does not reflect the effect of optical brightening agents.

This method and the single cycle test methods described in ISO 105-C06 and ISO 105-C08 might not reproduce the effect of coloured fabrics treated with certain dye fixing agents and finishes after multiple (5 to 10) industrial washes.

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