



DPC: 24/30480427 DC

BSI Group Headquarters

389 Chiswick High Road London W4 4AL

Tel: +44 (0)20 8996 9000

Fax: +44 (0)20 8996 7400

www.bsigroup.com

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Interested committees:

Title: Draft BS ISO 13629-1 Textiles - Determination of antifungal activity of textile products. Part 1: Luminescence method.

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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
- All comments should be submitted online at <https://standardsdevelopment.bsigroup.com/>. You will need to register in order to comment.

Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/DIS 13629-1

Textiles — Determination of antifungal activity of textile products —

Part 1: Luminescence method

*Textiles — Détermination de l'activité antifongique des produits
textiles —*

Partie 1: Méthode par luminescence

ICS: 59.080.01

ISO/TC 38

Secretariat: JISC

Voting begins on:
2024-03-11

Voting terminates on:
2024-06-03

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative reference	1
3 Terms and definitions	1
4 Principle	2
5 Safety precaution	2
6 Reference fungi	2
7 Apparatus	2
8 Reagents and culture media	4
8.1 General	4
8.2 Pure water	4
8.3 Anionic surfactant	4
8.4 Luminescent reagents, reagents and buffer solutions	4
8.4.1 General	4
8.4.2 ATP standard stock solution (1×10^{-3} mol/l) referred to as ATP standard hereafter	4
8.4.3 Buffer solution for ATP luminescent reagent	4
8.4.4 ATP luminescent reagent	5
8.4.5 ATP extraction reagent	5
8.4.6 ATP eliminating reagent	5
8.4.7 Physiological saline solution	6
8.4.8 Sterilized water containing anionic surfactant (8.3)	6
8.5 Culture medium	6
8.5.1 Sabouraud dextrose broth (SDB)	6
8.5.2 Potato dextrose agar (PDA)	6
8.5.3 Slant culture	6
8.5.4 Sabouraud dextrose agar (SDA)	6
9 Fungus preservation and use	7
9.1 Fungus preservation	7
9.2 Use of fungus	7
10 Spore suspension	7
10.1 Suspending spores in culture media	8
10.2 Collection and dispersion of spore suspension from a culture medium	8
10.3 Filtering to remove hyphae and spore threads	8
10.4 Using centrifugal separation and resuspension to remove supernatant	9
10.5 Confirming the concentration of spore suspension	9
10.6 Adjusting spore suspension for testing	9
11 Preparing the ATP calibration curve	9
12 Testing method	10
12.1 Preparation of test specimens and inoculation	10
12.1.1 General	10
12.1.2 Absorption method	11
12.1.3 Transfer method	12
12.2 Incubation	12
12.2.1 Absorption method	12
12.2.2 Transfer method	12
13 Measurement of luminescence intensity	13
13.1 Absorption method	13

13.2	Transfer method.....	14
14	Calculation.....	14
14.1	Judgment of test effectiveness.....	14
14.2	Calculation of antifungal activity value.....	15
15	Test report.....	15
Annex A (normative) The fungi used in this part of ISO 13629		16
Annex B (informative) Antifungal efficacy.....		17
Bibliography.....		18

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 13629-1 was prepared by Technical Committee ISO/TC 38, *Textiles*.

This second edition cancels and replaces the first edition (ISO 13629-1:2012), which has been technically revised.

The main changes compared to the previous edition are as follows:

- In the [subclause 8.4.6](#), Adenosine phosphate deaminase (EC: 3.5.4.6 or 3.5.4.17) 46 international units/ml has been corrected to 4,6 international units/ml;
- In the [subclause 13.1](#), h) and i) and [equation \(2\)](#) have been added;
- In the [subclause 13.2](#), h) and i) has been added;
- In the [subclause 14.1](#), the equation number has been changed from (2) to (3);
- In the [subclause 14.2](#), the equation number has been changed from (3) to (4);
- Figures have been updated;
- The fungal type of cladosporium cladosporioides in [Table A.1](#) has been corrected to cladosporium sphaerospermum.

A list of all parts in the ISO 13629 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.

Introduction

Speciality products of antimicrobial-treated textiles have been increasing year by year in various applications and they certainly contribute to the prevention of a material's deterioration and to the improvement of the environment and quality of life.

For these reasons, ISO/TC 38/WG 23 developed ISO 20743 in 2007, and is continuing to study a test method on the antifungal activity of textile products for a series of International Standards.

This part of ISO 13629 adopts an ATP luminescence method as a basis for the quantitative determination of antifungal activity.

Characteristics of the luminescence method are as follows:

- extremely small margin of error compared to the colony count method;
- elimination of the culturing time for colony formation, enabling a shorter testing time;
- simplification of testing operation.

The other parts will be developed relating to:

- Part 2: Plate count method.

Textiles — Determination of antifungal activity of textile products —

Part 1: Luminescence method

1 Scope

This document specifies a test method for the quantitative determination of the antifungal activity by measuring the intensity of luminescence produced by an enzymatic reaction [adenosine triphosphate (ATP) method].

This document is applicable to various kinds of textile products, such as fibres, yarns, fabrics, clothing, bedclothes, home furnishings and other miscellaneous goods.

Based on the intended application and on the environment in which the textile product is to be used, the user can select the most suitable evaluation method from the following methods before enumeration by the ATP method:

- a) absorption method (an evaluation method in which test fungi suspension is inoculated directly onto the specimens);
- b) transfer method (an evaluation method in which test fungi are placed on an agar plate and printed onto the specimens).

2 Normative reference

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-F02, *Textiles — Tests for colour fastness — Part F02: Specification for cotton and viscose adjacent fabrics*

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>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

control specimen

specimen used to validate the growth condition of test fungus

Note 1 to entry: The control specimen may be taken from the same textile products as the textile products to be tested, but without antifungal treatment. If this is not available, a 100 % cotton specimen without fluorescent brighteners or other finish, complying with the requirements of ISO 105-F02, is used as the control specimen, after 10 cycles of washing for 10 min at a temperature of 60 °C without detergents or any brighteners and rinsing twice for 5 min in accordance with ISO 6330.