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Footwear and footwear components — Test method to assess antimicrobial activity — Agar diffusion test

Chaussures et composants de chaussures — Méthode d'essai pour évaluer l'activité antimicrobienne — Essai de diffusion sur gélose

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Foreword

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This document was prepared by Technical Committee ISO/TC 216, *Footwear.*

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Footwear and footwear components — Test method to assess antimicrobial activity — Agar diffusion test

CAUTION — Test methods specified in this document require the use of microbes. These tests shall only be carried out in facilities with containment techniques for handling microorganisms and by persons with training and experience in the use of microbiological techniques.

1 Scope

This document specifies a test method for evaluating the antimicrobial (either antibacterial or antifungal, or both) activity of footwear and footwear components.

This document is applicable to all types of footwear and footwear components employing diffusing antimicrobial treatments.

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 7218, *Microbiology of the food chain — General requirements and guidance for microbiological examinations*

ISO 19952, *Footwear — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 19952 and the following apply.

ISO and IEC maintain terminology 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
antimicrobial activity
efficacy of a material or finish used to prevent or mitigate the growth of microbes, to reduce the number of microbes or to kill microbes

3.2
control specimen
specimen with material identical to the test specimen but without antimicrobial treatment

3.3
zone of inhibition
region of no microbial growth near the boundary between the specimen and the agar medium surface

4 Principle

The test specimens and control specimens are placed on agar plates which have been inoculated with a microbial suspension of a selected test strain specified or claimed in independent tests with one Gram-positive and one Gram-negative bacterial test organism, and one microfungus (yeast) test organism.

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