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Textiles — Determination of deodorant property —

Part 6: Gas chromatography method using automated dosing and sampling

Textiles — Détermination des propriétés de neutralisation d'odeurs —

Partie 6: Méthode par chromatographie en phase gazeuse utilisant un dosage et un échantillonnage automatisés

Reference number
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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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This document was prepared by Technical Committee ISO/TC 38, *Textiles*.

A list of all parts in the ISO 17299 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

This document describes a gas chromatography testing method for concentration measurement of odour chemicals in deodorant testing. This is the most general testing method that can be carried out in many testing laboratories globally if they have gas chromatography equipped with accessories for automated dosing and sampling.

This document describes a specific procedure for the gas chromatography testing method using automated dosing and sampling, while ISO 17299-3 is based on manual dosing and sampling.

Concentrations of the gaseous odour component chemicals in containers with or without a test specimen after a designated contact time are measured by GC. The reduction rate of concentration of odour chemicals in the container with a test specimen is calculated from the concentration data with a test specimen and without a test specimen.

Each chemical odorant is tested separately. Odour chemical contact with fabric can be uncontrollable due to auto-dosing device. However, heating and agitation are expected to volatilize the odorant solution.

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Textiles — Determination of deodorant property —

Part 6: Gas chromatography method using automated dosing and sampling

1 Scope

This document specifies gas chromatography (GC) test methods for the deodorant testing of all textile products. These methods apply to odour component chemicals, such as indole, isovaleric acid and nonenal.

Two methods are described in this document.

— Method A (single analysis) where an odour chemical is applied in a container avoiding contact with a test specimen.

— Method B (auto-regeneration) where an odour chemical is applied in a container avoiding contact with a test specimen multiple times to repeatedly challenge a test specimen.

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 139, *Textiles — Standard atmospheres for conditioning and testing*

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

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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
test specimen
test piece that is cut from a sample of a *textile product* (3.3), as specified by the test procedure, or a representative sample of the product itself

3.2
textile deodorant
textile with the ability to reduce the *unpleasant odour* (3.4) in the ambient air around *textile products* (3.3)

Note 1 to entry: The unpleasant odour is caused by the chemicals listed in 4.1, 4.2 and 4.3.

[SOURCE: ISO 17299-1:2014, 3.1.4, modified — cross reference changed in Note 1]

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