
**Textiles — Anti-mosquito
performance test method using the
attractive blood feeding apparatus**

*Textiles — Méthode d'essai de performance anti-moustiques au
moyen du dispositif d'attraction par apport de sang*



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Foreword

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

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

In recent years, threats of infectious diseases mediated by insects such as mosquitoes are rising. In response to consumers' concerns about this, demand for high-performance anti-mosquito fabrics has been expanding. However, there has been no standard for evaluating the performance of such anti-mosquito fabrics, and it has been difficult to provide fair technical information on their performance. Therefore, a new test method was established in order to evaluate anti-mosquito performance of fabrics.

For this purpose, an apparatus was developed for attraction and blood feeding of blood-unfed mosquitoes through fabrics without using human or animal as a feeding source.

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Textiles — Anti-mosquito performance test method using the attractive blood feeding apparatus

1 Scope

This document specifies a method for evaluating the function of reducing mosquito contact and blood feeding through the anti-mosquito fabric regardless of whether chemicals are treated or not. It provides the test method for evaluating this function without using human or animal as blood feeding sources.

In addition, this document is only concerned with evaluation of anti-mosquito performance, and not concerned with evaluation of preventive method of diseases caused by anti-mosquito performance.

2 Normative references

There are no normative references in this document.

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

anti-mosquito fabric

fabric for preventing blood sucking by treating chemicals or processing fabric structure

3.2

landing

state of mosquito alighting and staying on a surface within an arbitrary section (on the test specimen)

3.3

blood feeding rate

percentage of the number of blood-fed mosquitoes through specimen to the total number of mosquitoes

3.4

probing behaviour

behaviour of mosquito while looking for a place to insert its proboscis for blood feeding

Note 1 to entry: This gesture is recognized as an up and down movement of the head.

3.5

blood feeding prevention

effectiveness of test sample in preventing blood feeding of mosquitoes

Note 1 to entry: In this document, it is indicated by the blood feeding prevention index.

4 Principle

Using the attractive blood feeding device, obtain the blood feeding prevention index and determine the landing and probing behaviour of blood eager female mosquitoes when exposed to a test sample.