International Standard

ISO 13433

Geosynthetics — Determination of dynamic perforation (cone drop test)

Géosynthétiques — Essai de perforation dynamique (essai par chute d'un cône)

Second edition
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Foreword

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This document was prepared by Technical Committee ISO/TC 221, *Geosynthetics,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 189, *Geosynthetics,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 13433:2006), which has been technically revised.

The main changes are as follows:

— revision and addition of tolerances on dimensions;

— addition of interpretation of results.

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Geosynthetics — Determination of dynamic perforation (cone drop test)

1 Scope

This document specifies a method to determine the resistance of geosynthetics to dynamic penetration by a steel cone dropped from a fixed height.

The method is generally applicable to geosynthetics. However, the applicability of this test for some types of products (such as e.g. GGR,GCE, GST,GBR) should be considered carefully .

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 554, *Standard atmospheres for conditioning and/or testing — Specifications*

ISO 9862, *Geosynthetics — Sampling and preparation of test specimens*

ISO 10318-1, *Geosynthetics — Part 1: Terms and definitions*

ISO 10320, *Geosynthetics — Identification on site*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10318-1 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
hole diameter
diameter of the hole made by the cone in dynamic perforation in the specimen

Note 1 to entry: The hole diameter is measured in millimetres.

4 Principle

The specimen is clamped horizontally between two steel rings. A stainless-steel cone is dropped from a distance of 500 mm ± 2 mm onto the centre of the specimen. The degree of penetration is measured by inserting a measuring cone into the hole.

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