International Standard

ISO 13428

# Geosynthetics — Determination of the protection efficiency of a geosynthetic against impact damage

*Géosynthétiques — Détermination de l'efficacité de protection d'un géosynthétique contre l'effet d'un impact*

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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 13428:2005), which has been technically revised.

The main changes are as follows:

— the normative references have been updated;

— Figure 1 has been corrected;

— the thickness of lead plate has been modified to 2,0 mm.

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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# Geosynthetics — Determination of the protection efficiency of a geosynthetic against impact damage

## 1 Scope

This document describes an index test for the determination of the protection efficiency of a geosynthetic on a hard surface, exposed to the impact load of a hemispherical object.

The index test measures the change in thickness of a thin lead plate lying between the geosynthetic and a rigid support.

It is also used as a performance test, by using the real rigid surface to protect and the real sequence of geosynthetics.

The test is applicable to all geosynthetics with apertures smaller than 15 mm (maximum size).

## 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 9863-1, *Geosynthetics — Determination of thickness at specified pressures — Part 1: Single layers*

ISO 9864, *Geosynthetics — Test method for the determination of mass per unit area of geotextiles and geotextile-related products*

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

EN 12588, *Lead and lead alloys — Rolled lead sheet for building purposes*

## 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 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**
**lead plate thickness**
*s*
thickness of the thin plate used to assess the effect of impact

Note 1 to entry: Plate thickness is expressed in millimeters.

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