International Standard

ISO 12236

Geosynthetics — Static puncture test (CBR test)

Géosynthétiques — Essai de poinçonnement statique (essai CBR)

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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 third edition cancels and replaces the second edition (ISO 12236:2006) which has been technically revised.

The main changes are as follows:

— Figure 4 has been revised;

— Clause 8 has been updated;

— Clause 10 has been updated;

— units have been made consistent.

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Geosynthetics — Static puncture test (CBR test)

1 Scope

This document specifies a method for the determination of the puncture resistance by measuring the force required to push a flat-ended plunger through geosynthetics.

The test is normally carried out on dry specimens conditioned in the specified atmosphere.

The test is applicable to most types of geosynthetic products, but does not apply to products with apertures greater than 10 mm.

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 7500-1, *Metallic materials — Calibration and verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system*

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

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

ISO 10320, *Geosynthetics — Identification on site*

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
plunger force
F
force as the plunger is pushed onto and through the specimen at a constant rate of *displacement* (3.3)

Note 1 to entry: The plunger force is expressed in kilonewtons.

Note 2 to entry: See Figure 1.

3.2
push-through force
F_p
maximum *plunger force* (3.1) recorded for each single test

Note 1 to entry: The push-through force is expressed in kilonewtons.

Note 2 to entry: See Figure 1.

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