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**Geosynthetics — Determination of  
compression behaviour —**

**Part 1:  
Compressive creep properties**

*Géosynthétiques — Détermination du comportement en  
compression —*

*Partie 1: Propriétés de fluage en compression*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 25619-1 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 189, *Geosynthetics*, in collaboration with ISO Technical Committee ISO/TC 221, *Geosynthetics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO 25619-1 cancels and replaces EN 1897:2001, which has been technically revised. The following technical changes have been introduced:

- normative references have been updated;
- definitions, in particular with regard to compressive creep strain ( $\varepsilon_{cc}$ ), have been clarified;
- omission of conditioning of the test specimen has been allowed under specific circumstances, and the circumstances under which immersed specimens should be tested have been specified;
- a requirement has been included that the stress applied by the top plate on the specimen shall not exceed 2 kPa;
- calculation of compressive creep strain has been included in addition to total compressive strain; a requirement has been included that it be referred to in the test report and that a plot of compressive creep strain versus log (time) be provided (for both test methods).

ISO 25619 consists of the following parts, under the general title *Geosynthetics — Determination of compression behaviour*:

- *Part 1: Compressive creep properties*
- *Part 2: Determination of short-term compression behaviour.*

# Geosynthetics — Determination of compression behaviour —

## Part 1: Compressive creep properties

### 1 Scope

This part of ISO 25619 specifies index test methods for determining the compressive creep properties of geosynthetic products. The test specimens are subjected either to normal compressive loading or to a combination of normal compressive loading and shear loading.

The test method with a normal load only (see Clause 5) is the standard method.

The test method in which both normal and shear loads are applied (see Clause 6) is intended for products that are sensitive to shear failure, i.e. which have a columnar or cusped structure.

The tests are carried out on dry specimens or on specimens immersed in water. The test is intended to be carried out with the specimen immersed in water when any part of the geosynthetic product contains a hydrophilic polymer.

### 2 Normative references

The following referenced documents are indispensable for the application 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 3696, *Water for analytical laboratory use* — Specification and test methods

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

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

ISO 10318, *Geosynthetics* — Terms and definitions

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10318 and the following apply.

#### 3.1

##### thickness

*d*

distance between the two rigid plates in contact with the specimen at any stage of the test

See Figures 1 and 2.

NOTE Thickness is measured in millimetres.