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**Geotextiles and geotextile-related  
products — Strength of internal  
structural junctions —**

**Part 2:  
Geocomposites**

*Géotextiles et produits apparentés — Résistance des liaisons de  
structures internes —*

*Partie 2: Géocomposites*

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Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

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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 13426-2 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 189, *Geosynthetics*, in collaboration with Technical Committee ISO/TC 221, *Geosynthetics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

ISO 13426 consists of the following parts, under the general title *Geotextiles and geotextile-related products* — *Strength of internal structural junctions*:

- *Part 1: Geocells*
- *Part 2: Geocomposites*
- *Part 3: Geogrids*

# Geotextiles and geotextile-related products — Strength of internal structural junctions —

## Part 2: Geocomposites

### 1 Scope

This part of ISO 13426 describes index tests for determining the strength of the internal structural junctions of all geocomposites and of clay geosynthetic barriers.

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

ISO 10318, *Geosynthetics — Terms and definitions*

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### 3 Terms and definitions

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

#### 3.1

##### **failure**

point at which a geosynthetic ceases to be functionally capable of its intended use

NOTE A material may be considered to have failed without rupture.

#### 3.2

##### **geocomposite**

manufactured, assembled material using at least one geosynthetic product among the components, used in contact with soil and/or other materials in geotechnical and civil engineering applications

#### 3.3

##### **junction**

point or line where two of the geosynthetics components are connected

#### 3.4

##### **junction strength**

peak load attained during the test, reported to the unit width of the product

NOTE The junction strength is expressed in kilonewtons per metre (kN/m).

**3.5 peel test**

tensile test where two components of a geocomposite are separately clamped and one component is peeled away from the other

**3.6 rupture**

breaking or tearing apart of a geosynthetic

**3.7 shear test**

tensile test where two components of a geocomposite are separately clamped and the failure occurs along the plane of the product

**4 Principle**

Specimens are tested to measure the resistance of the junctions to different states of stress.

The tests performed for geocomposites are as follows:

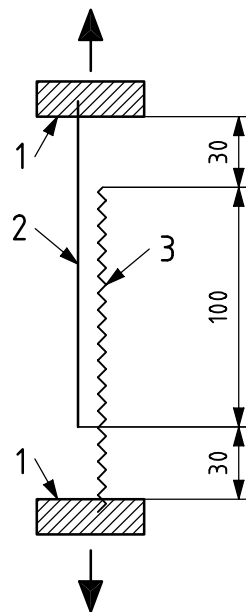
- Shear test (Test A — Figure 1): After cutting a test specimen of wide width, one of the two geosynthetics making the junction is delaminated from the other for a certain length at each opposed edge, enough to ensure a good clamping. The delaminated portion is mounted in a clamp of a tensile testing machine, while the other geosynthetic at the opposite edge of the specimen is mounted in the other clamp. The specimen is tested at a constant rate of strain, until shear failure of the junction or tensile failure of one of the geosynthetics occurs. The corresponding tensile shear resistance is measured and recorded.
- Peel test (Test B — Figure 2): After cutting a a test specimen of wide width, one of the two geosynthetics making the junction is delaminated from the other for a certain length at one edge, enough to ensure a good clamping. The delaminated portions of the two geosynthetics are each mounted in one clamp of a tensile testing machine. The specimen is tested until failure occurs. The corresponding peeling resistance is measured and recorded.

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<https://standards.iteh.ai/catalog/standards/iso/a87c3c46-f02e-4e85-91d7-2c3f489d3678/iso-13426-2-2005> Dimensions in millimetres

**Key**

- 1 clamp
- 2 first geosynthetic component
- 3 second geosynthetic component



**Figure 1 — Shear test**