

भारतीय मानक ब्यूरो  
BUREAU OF INDIAN STANDARDS

*Draft For Comments Only*

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*भारतीय मानक मसौदा*

भूवस्त्रादि और भूवस्त्रादि संबंधित उत्पाद — आंतरिक संरचनात्मक संधि-स्थलों का सामर्थ्य  
भाग 2 जियोकंपोजिट्स

*[ आई एस 17369 (भाग 2) : 2020 का पहला पुनरीक्षण ]*

*Draft Indian Standard*

**Geotextiles and Geotextile-related Products — Strength of Internal Structural Junctions  
Part 2 Geo-composites**

*[ First Revision of IS 17369 (Part 2) : 2020 ]*

ICS : 59.080.70

Geosynthetics Sectional Committee  
, TXD 30

Last date for receipt of comments is  
16 October 2024

NATIONAL FOREWORD

*(Formal clauses will be added later)*

This Indian Standard intended to be adopted is identical with ISO 13426-2:2024 ‘Geotextiles and geotextile-related products — Strength of internal structural junctions — Part 2: Geocomposites ’ issued by the International Organization for Standardization (ISO).

The standard was originally published in 2020. The second revision of the standard has been undertaken to align it with the latest version of ISO 13426-2 : 2024. The major changes in this revision are as follows:

- In Clause 9, the calculation of the junction strength for tests with multiple peaks has been modified.

Since, ISO 13426 has been published in two parts, this standard has also been published in two parts. Other part is as under:

Part 1 Geocells

Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In the standard intended to be adopted, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards which are to be substituted in their respective places are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
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	IS 1828 (Part 1) : 2022 Metallic materials — Calibration and verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Calibration and verification of the force-measuring system ( <i>fifth revision</i> )	Identical with ISO 7500-1 : 2018
ISO 9862 Geosynthetics — Sampling and preparation of test specimens	IS 14706 : 1999 Geotextiles — Sampling and preparation of test specimens	Technically equivalent
ISO 10318-1 Geosynthetics — Part 1: Terms and definitions	IS 13321 (Part 1) : 2022 Geosynthetics — Part 1 terms and definitions ( <i>first revision</i> )	Identical with ISO 10318-1 : 2015

The technical committee has reviewed the provisions of the following International Standards referred in this standard intended to be adopted and has decided that these are acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 554	Standard atmospheres for conditioning and/or testing — Specifications

In reporting the results of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’.

# **Extract of ISO 13426-2:2024 ‘Geotextiles and geotextile-related products — Strength of internal structural junctions Part 2 : Geocomposite’**

## **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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at [www.iso.org/patents](http://www.iso.org/patents). ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

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, *Geotextiles and geotextile-related products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 13426-2:2005), which has been technically revised.

The main changes are as follows:

- — In Clause 9, the calculation of the junction strength for tests with multiple peaks has been modified.

A list of all parts in the ISO 13426 series can be found on the ISO website.

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](http://www.iso.org/members.html).

## 1 Scope

This document describes index tests for determining the strength of the internal structural junctions under different loading conditions of all geocomposites and of clay geosynthetic barriers.

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

## 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 failure

Point at which a geosynthetic ceases to be functionally capable of its intended use  
Note 1 to entry: A material can 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 1 to entry: The junction strength is expressed in kilonewtons per metre (kN/m).

### **3.5 peel test**

Tensile test where two components of a *geocomposite* (3.2) 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* (3.2) are separately clamped and the *failure* (3.1) occurs along the plane of the product

## FORMAT FOR SENDING COMMENTS ON BIS DOCUMENTS

(Please use A4 size sheet of paper only and type within fields indicated. Comments on each clause/sub clause/table/fig etc. be started on a fresh box. Information in column 3 should include reasons for the comments and suggestions for modified working of the clauses when the existing text is found not acceptable. Adherence to this format facilitates Secretariat's work)

*Please e-mail your comments to [txd@bis.gov.in](mailto:txd@bis.gov.in)*

NAME OF THE COMMENTATOR/ORGANIZATION:

DOCUMENT NO: TXD 30 (26515) WC

<b>Item, Clause Sub-Clause No. Commented upon (Use Separate Box afresh)</b>	<b>Comments</b>	<b>Specific Proposal (Draft clause to be add/amended)</b>	<b>Remarks</b>	<b>Technical References and justification on which (2), (3), (4) are based</b>
<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>