



SLOVENSKI STANDARD

SIST EN 13562:2000

01-julij-2000

Geotekstilije in sorodni izdelki - Ugotavljanje odpornosti proti prepuščanju vode (hidrostatični tlačni preskus)

Geotextiles and geotextile-related products - Determination of resistance to penetration by water (hydrostatic pressure test)

Geotextilien und geotextilverwandte Produkte - Bestimmung des Widerstandes gegen Wasserdurchtritt (Wassersäule-Prüfverfahren)

Géotextiles et produits apparentés - Détermination de la résistance à la pénétration d'eau (essai sous pression hydrostatique)

ITAI STANDARD PREVIEW
(standards.iteh.ai)
<https://standards.iteh.ai/catalog/standards/sist/a99db056-6f32-4dc3-b678-262617352003/sist-en-13562-2000>

Ta slovenski standard je istoveten z: EN 13562:2000

ICS:

59.080.70 Geotekstilije Geotextiles

SIST EN 13562:2000 **en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 13562:2000

<https://standards.iteh.ai/catalog/standards/sist/a99db056-6f32-4dc3-b678-262617352003/sist-en-13562-2000>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13562

March 2000

ICS 59.080.70

English version

Geotextiles and geotextile-related products - Determination of
resistance to penetration by water (hydrostatic pressure test)

Géotextiles et produits apparentés - Détermination de la
résistance à la pénétration d'eau (essai sous pression
hydrostatique)

Geotextilien und geotextilverwandte Produkte -
Bestimmung des Widerstandes gegen Wasserdurchtritt
(Wassersäule-Prüfverfahren)

This European Standard was approved by CEN on 21 February 2000.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

[SIST EN 13562:2000](https://standards.iteh.ai/catalog/standards/sist/a99db056-6b32-4dc3-b678-262617352003/sist-en-13562-2000)

<https://standards.iteh.ai/catalog/standards/sist/a99db056-6b32-4dc3-b678-262617352003/sist-en-13562-2000>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

This European Standard has been prepared by Technical Committee CEN/TC 189 "Geotextiles and geotextile-related products", the secretariat of which is held by IBN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2000, and conflicting national standards shall be withdrawn at the latest by September 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 13562:2000

<https://standards.iteh.ai/catalog/standards/sist/a99db056-6f32-4dc3-b678-262617352003/sist-en-13562-2000>

1 Scope

This European Standard specifies a hydrostatic pressure method for determining the resistance of dry geotextiles to penetration by water.

2 Normative references

This European standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

ISO 554 Standard atmospheres for conditioning and/or testing - Specifications

EN 963 Geotextiles and geotextile-related products - Sampling and preparation of test specimens

ITeH STANDARD PREVIEW
(standards.iteh.ai)

3 Principle

The hydrostatic pressure supported by a dry geotextile is a measure of the opposition to the passage of water through the geotextile. A specimen is subjected to a steadily increasing pressure of water on one face, under standard conditions, until penetration occurs. The pressure, at which water penetrates the geotextile, is noted. The water pressure may be applied from below or from above the specimen. The chosen alternative should be stated in the test report.

The result is immediately relevant to the behaviour of geotextiles which are subjected to water pressure for short or moderate periods of time. The method is primarily intended for low permeability geotextiles.

4 Apparatus

4.1 The apparatus used for the test should be designed to comply with the following conditions.

4.1.1 It should be possible to clamp the circular specimen of geotextile in such a way that:

- it is horizontal and not bulging;
- a circular area of the specimen of (100 ± 1) cm² is subjected to steadily increasing water pressure from below or from above the specimen;
- no leakage of water takes place at the clamps during the test;
- the specimen does not slip in the clamps;
- any tendency for penetration to occur at the clamped edge of the specimen is minimised.

NOTE: With some form of apparatus, it has been found that correct conditions of clamping can be attained if the clamps are faced with suitable rubber.

Two examples of apparatus are shown in figure 1.

4.1.2 The water in contact with the test specimen shall be distilled or fully deionized water maintained at $(20 \pm 2) ^\circ\text{C}$.

If the apparatus used is of the type in which the water is contained in the testing head and rises to come into contact with the specimen, the surface of the water in the testing head may be cleaned in one of the following ways, stated in order of preference:

- a) empty the testing head and refill with sufficient freshly distilled water;
- b) allow the distilled water to overflow from the testing head so that the surface of the water is cleared and sweep the surface of the water with a glass slide freshly coated with paraffine wax;
- c) allow the distilled water to overflow from the testing head so that the surface of the water is cleared.

4.1.3 The rate of increase of water pressure shall be (100 ± 5) mm/min

4.1.4 It is necessary to provide a manometer of suitable range, i.e. a manometer which provides for water pressures up to 500 mm. The manometer connected to the testing head shall allow water pressures to be read to an accuracy of at least 1 mm.

5 Conditioning

Conditioning and testing shall be carried out at $(20 \pm 2) ^\circ\text{C}$ and $(65 \pm 5) \%$ relative humidity, in accordance with ISO 554.

6 Test specimens

6.1 Handling

The sample shall not be folded and shall be handled as infrequently as possible to avoid disturbance in its structure. The sample shall be kept in a flat position without any load.

6.2 Sampling

Take test specimens from the product sample in accordance with EN 963.

6.3 Number and dimensions

Cut 10 specimens, five to be tested on each face. Identification of face orientation in relation to roll configuration or manufacturing process shall be provided and marked on the sample.

NOTE: Where it is necessary to determine the results to within a given confidence interval of the mean, the number of test specimens should be determined in accordance with ISO 2854.

6.4 Condition of specimens

The specimens shall be clean, free from surface deposits and without visible damage or folding marks.

7 Procedure

7.1 Provide freshly distilled water for each specimen tested.

7.2 Wipe all water from clamping surfaces. Clamp the conditioned specimen in the test head so that the face of the geotextile will be in contact with the water. The clamping shall be carried out in such a way that water will not be forced through the specimen prior to the start of the test.

7.3 Subject the specimen immediately to increasing water pressure. Watch continuously for evidence of penetration by water.

7.4 Record the pressure as conventional millimetres of water, at which water first appears in continuous droplet form through the specimen.

7.5 Continue to increase the water pressure and record the maximum water pressure achieved. Do not take into account very fine droplets which do not grow after being formed. Note whether the penetration of water occurs at the edge of the clamp and reject as unsatisfactory any test in which such penetration occurs at a pressure less than the lowest pressure recorded for the other specimens from the same sample.

7.6 Test further specimens until the required number of satisfactory results is obtained.

8 Calculation and expression of test results

Calculate the mean of the pressures recorded for the specimens tested according to clause 7. Report the individual results and the mean result in conventional millimetres of water pressure.

Page 6
EN 13562:2000

9 Test report

The test report shall include the following information:

- a) reference to this standard;
- b) the atmosphere used (standard atmosphere or other);
- c) the temperature of the water;
- d) whether the water pressure was applied from below or from above the test specimen and an illustrative example of the apparatus used (if required);
- e) the rate of increase of water pressure;
- f) the face of the geotextile tested;
- g) any variation in size or shape of the test specimen;
- h) the individual results and their mean.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 13562:2000](https://standards.iteh.ai/catalog/standards/sist/a99db056-6f32-4dc3-b678-262617352003/sist-en-13562-2000)

<https://standards.iteh.ai/catalog/standards/sist/a99db056-6f32-4dc3-b678-262617352003/sist-en-13562-2000>