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Geotextiles — Determination of thickness at specified pressures

Géotextiles — Détermination de l'épaisseur à des pressions prescrites



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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.

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.

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International Organization for Standardization

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Geotextiles — Determination of thickness at specified pressures

1 Scope

1.1 This International Standard specifies a method for the determination of the thickness of geotextiles at specified pressures and defines the pressure at which the nominal thickness is determined.

The test results are intended for identification purposes and for use in technical data sheets and/or as part of other test methods, e.g. tests of hydraulic properties.

1.2 The method is applicable to all geotextiles, but not necessarily to all geotextile-related products such as geogrids.

NOTE 1 Normally the thickness of a geotextile is determined by measuring one layer of the geotextile. In cases when two or more layers are used on top of each other in a design, the test may be made in accordance with this International Standard with the agreed number of layers instead of one. In such cases when testing structured geotextiles, consideration should be given to the relevance of such findings.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 554:1976, *Standard atmospheres for conditioning and/or testing — Specifications*.

ISO 9862:1990, *Geotextiles — Sampling and preparation of test specimens*.

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 thickness (of geotextiles): The distance between a reference plate on which the specimen rests and the contacting face of a parallel presser-foot applying a given pressure to the specimen.

3.2 nominal thickness (of geotextiles): The thickness determined when a pressure of $2 \text{ kPa} \pm 0,01 \text{ kPa}$ is applied to the specimen.

4 Principle

4.1 The thickness of a number of specimens of geotextiles is measured as the distance between the reference plate on which the specimen rests and the contacting face of a parallel, circular presser-foot exerting a given pressure on an area of defined size within a larger area of geotextile.

4.2 The result of the test is given as the average of the results obtained at each specified pressure.

5 Apparatus

5.1 Thickness tester, incorporating the following elements:

5.1.1 Removeable presser-foot, having a plane circular surface of area 25 cm^2 for testing materials of uniform thickness. For the determination of the overall thickness of materials of non-uniform thickness or the thickness of parts of such materials, the size of the presser-foot shall be agreed between the interested parties and the size shall be given in the test report.

The presser-foot shall be capable of exerting pressures of 2 kPa, 20 kPa and 200 kPa, within a tolerance of 0,5 %, normal to the plane of the specimen.