INTERNATIONAL STANDARD

ISO 9863-1

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Geosynthetics — Determination of thickness at specified pressures —

Part 1: Single layers

Géosynthétiques — Détermination de l'épaisseur à des pressions spécifiées —

Partie 1: Couches individuelles

Reference number
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Foreword

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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 9863-1 was prepared by the European Committee for Standardization (CEN) in collaboration with Technical Committee ISO/TC 221, *Geosynthetics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this document, read "...this European Standard..." to mean "...this International Standard...".

Together with part 2 (see below), it cancels and replaces ISO 9863:1990, which has been technically revised.

ISO 9863 consists of the following parts, under the general title *Geosynthetics — Determination of thickness at specified pressures*:

— *Part 1: Single layers*

— *Part 2: Procedure for determination of thickness of single layers of multilayer products*

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Foreword

This document (EN ISO 9863-1:2005) has been prepared by Technical Committee CEN/TC 189 "Geosynthetics", the secretariat of which is held by IBN, in collaboration with Technical Committee ISO/TC 221 " Geosynthetics".

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of an identical text or by endorsement, at the latest by August 2005, and conflicting national standards shall be withdrawn at the latest by August 2005.

This document supersedes EN 964-1:1995.

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

1 Scope

This part of EN ISO 9863 specifies a method for the determination of the thickness of geosynthetics 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.

The method is applicable to all geosynthetics.

NOTE 1 Normally the thickness of geosynthetics is determined by measuring one layer of the product. When two or more layers are used on top of each other in a design, the test may be made in accordance with this standard with the agreed number of layers instead of one.

NOTE 2 When testing structured geosynthetics, care should be taken to ensure that the results are meaningful for the particular product.

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.*

EN ISO 9862, *Geosynthetics — Sampling and preparation of test specimens (ISO 9862:2005).*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
thickness
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
for polymeric and bituminous geosynthetic barriers of uniform thickness, the thickness determined when a pressure of (20 ± 0,1) kPa is applied to the specimen

for all other geosynthetics, the thickness determined when a pressure of (2 ± 0,01) kPa is applied to the specimen

for textured polymeric and bituminous geosynthetic barriers, the thickness determined when a force of (0,6 ± 0,1) N is applied to the specimen

4 Principle

4.1 The thickness of a number of individual specimens of a geosynthetic 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 specified pressure on an area of defined size within a larger area of the specimen.

4.2 At each specified pressure, the result of the test is given as the mean of the values obtained.