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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 13761-1992

**Geosynthetics - Determination of thickness at specified
pressures - Part 1: Single layers
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules of Standardization Documents" drafted.

This document is part 1 of GB/T 13761 "Determination of thickness of geosynthetics under specified pressure". GB/T 13761 has the following sections were published.

--- Part 1: Single-layer products.

This document replaces GB/T 13761.1-2009 "Determination of thickness of geosynthetics under specified pressure - Part 1: Single-layer products Methods of Measuring Thickness". Compared with GB/T 13761.1-2009, in addition to structural adjustment and editorial changes, the main technical changes are as follows.

--- The scope of application was changed from "all geosynthetics" to "geosynthetics"; Notes 1 and 2 were deleted, and their contents were added to 7.1 in the main text (see Chapter 1, Chapter 1 and 7.1 of the 2009 edition);

--- Changed the definition of the term "thickness" (see 3.1);

--- Delete the term "nominal thickness" and its definition (Chapter 3 of the 2009 edition);

--- Changed the expression of "principle" (see 4.1, 4.1 of the 2009 edition);

--- Added the content of the reference point (see 4.1);

--- Deleted "circle" (see 5.1.1 of the 2009 edition);

---In Table 1, the types of "geotechnical spacers and drainage geocomposite materials" and the corresponding pressure foot and sample size requirements are added; in Table 1, the

for other geosynthetic materials, the "round" requirement is added to the size of the presser foot (see 5.1.1);

--- In 5.1.2 and 6.2, "(or diagonal)" has been added (see 5.1.2 and 6.2);

--- In 6.2, "take at least 30 samples" is changed to "at least 10 samples under each pressure" (see 6.2, 6.2 of the 2009 edition);

--- Changed the title of procedure A in 7.2 and the description of each clause, and clarified that the three pressures should be tested according to needs (see 7.2, 2009 edition 7.2);

--- Added 7.4 procedure C, the original procedure C was extended to 7.5 procedure D (see 7.4 and 7.5);

--- Change the content of Note 1 and Note 2 in Chapter 8 to the text (see Chapter 8, Chapter 8 of the 2009 edition);

--- Added the requirement of "if necessary, the selected test pressure" [see Chapter 9 e)];

--- The nature of Appendix A has been changed from informative to normative, and the title has been changed (see Appendix A, Appendix A of the 2009 edition).

This document is modified to adopt ISO 9863-1:2016 Amd1.2019 "Determination of thickness of geosynthetic materials under specified pressure No. 1" Section. Single Layer Products." the technical differences between this document and ISO 9863-1:2016 Amd1.2019 and their reasons are as follows.

--- Regarding normative reference documents, this document has made adjustments with technical differences to adapt to the technical conditions of our country and the circumstances of the adjustment.

The situation is reflected in Chapter 2 "Normative References", and the specific adjustments are as follows.

- Replace ISO 9862 with GB/T 13760 which is equivalent to adopting international standards;

- Replacing ISO 554 with GB/T 6529 which adopts the international standard ISO 139:2005;

--- Change the scope of application from "all geosynthetics" to "geosynthetics";

--- Modify the "minimum size 100mm x 100mm" presser foot in Table 1 to "minimum area 100cm² (round or square)";

--- Delete the requirement of "Presser foot size should comply with ISO 25619-1 regulations" in Table 1; Add note in Table 1;

---Add "(or diagonal)" in 5.1.2 and 6.2;

- Change the positions of 6.1 and 6.2 to make the description consistent with the actual operation steps; in 6.2, "at least 30 samples should be taken" is changed to "each Take at least 10 samples under pressure";
- Substitute ISO 554 with GB/T 6529 in 6.3;
- Adjusted the title of 7.2 Procedure A and the description of each clause, clarified that the three pressures should be tested according to needs, and added a note;
- Added 7.4.2 to ensure the integrity of the test procedure;
- 7.5 Add note in procedure D to improve the operability of the method;
- In Chapter 8, the thickness is uniformly accurate to 0.01mm;
- Chapter 9 e) clause, add "if necessary, should specify the selected test pressure", corresponding to the test procedure.

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

In terms of thickness testing of geosynthetics, ISO issued ISO 9863:1990 "Determination of Geotextile Thickness" in 1990.

Later, it was split and released as ISO 9863-2:1996 and ISO 9863-1:2005 two method standards in 1996 and 2005, respectively, in 2016 the ISO 9863-1 standard is revised and updated, and the current ISO test method for the thickness of geosynthetics includes the following two parts.

---ISO 9863-1:2016 "Determination of thickness of geosynthetics under specified pressure - Part 1: Single-layer products";

---ISO 9863-2:1996 "Determination of thickness of geotextiles and related products under specified pressure - Part 2: Single layer in multi-layer products Methods of Measuring Thickness".

In my country, it has also been transformed into a national standard, including.

---The modification of this document adopts ISO 9863-1:2016 Amd1.2019. The purpose is to provide the thickness of single-layer products of geosynthetics in my country Provides test methods.

---GB/T 17598-1998 "Determination of single-layer thickness in multi-layer geotextile products" (neqISO 9863-2.1996). aim at to provide a test method for the single-layer thickness of multi-layer geotextile products in my country.

Determination of thickness of geosynthetics under specified pressure Part 1: Single Layer

Products

1 Scope

This document describes the method and determination of the thickness of geosynthetics at a specified pressure and a specified presser foot area or specified load point.

Pressure or load at thickness.

Test results can be used for identification; or used in technical data sheets; or as part of other test methods, such as. waterproof performance test.

This document applies to geosynthetics.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 6529 Standard atmosphere for humidity control and testing of textiles (GB/T 6529-2008, ISO 139:2005, MOD) GB/T 13760 Geosynthetics Sampling and Sample Preparation (GB/T 13760-2009, ISO 9862:2005, IDT) ISO 25619-1 Determination of compressive behavior of geosynthetics - Part 1: Compression creep properties (Geosynthetics-Deter-

3 Terms and Definitions

The following terms and definitions apply to this document.

Thickness

The vertical distance between two reference plates or two reference points on which the specified pressure is applied.

4 Principles

4.1

The thickness of the geosynthetic material sample is tested by the reference plate. Place the sample on the reference plate and use a presser foot (presser foot) parallel to the reference plate.

The area should be smaller than the area of the sample) After applying the specified pressure to the sample for a certain period of time, measure the vertical distance between the two reference plates as the thickness of the sample.