

Geosynthetic clay barriers - Determination of water flux index - Flexible wall permeameter method at constant head

EESTI STANDARDI EESSÕNA

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English Version

Geosynthetic clay barriers - Determination of water flux index - Flexible wall permeameter method at constant head

Barrières géosynthétiques argileuses - Détermination de
l'indice eau par analyse en flux - Méthode au perméamètre
à paroi flexible de charge constante

Geosynthetische Tondichtungsbahnen - Bestimmung der
Durchflussrate - Triaxialzellen-Methode mit konstanter
Druckhöhe

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Foreword

This document (EN 16416:2013) has been prepared by Technical Committee CEN/TC 189 “Geosynthetics”, the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by March 2014, and conflicting national standards shall be withdrawn at the latest by March 2014.

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1 Scope

This European Standard describes an index test method that covers laboratory measurement of water flux through saturated clay geosynthetic barrier (GBR-C) specimens using a flexible wall permeameter at constant head.

This test method is applicable to GBR-C products with no additional sealing layers attached.

This test method provides a measurement of flux under a prescribed set of conditions that can be used for manufacturing quality control. The test method can also be used to check conformance.

The flux value determined using this test method is not considered to be representative of the in-service flux of a GBR-C.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

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

ISO 11465, *Soil quality — Determination of dry matter and water content on a mass basis — Gravimetric method*

3 Terms and definitions

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

3.1

flux

volumetric flow rate per unit area normal to the plane of the product at a defined head

[SOURCE: EN ISO 10318, 4.3.3]

4 Apparatus

The apparatus shall consist of the following.

4.1 Constant head hydraulic system

4.1.1 General

The system shall be capable of maintaining constant hydraulic pressures to within $\pm 2,5$ % and shall include means to measure the hydraulic pressures to within the prescribed tolerance. In addition, the system shall be capable of maintaining a constant head loss across the test specimen to within ± 5 % and shall include means to measure the head loss with the same accuracy or better.