
**Geotextiles and geotextile-related
products — Determination of water
permeability characteristics normal to the
plane, under load**

*Géotextiles et produits apparentés — Détermination des
caractéristiques de perméabilité à l'eau, perpendiculairement au plan et
sous contrainte*



This document is a preview generated by EVS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2012

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Principle	1
5 Specimens	1
5.1 Handling	1
5.2 Selection	1
5.3 Number and dimensions	2
5.4 Specimen conditions	2
6 Apparatus, water supply and measuring devices	2
6.1 Apparatus	2
6.2 Water supply, quality and condition	6
6.3 Measuring devices	6
7 Procedure	6
8 Calculation and expression of results	7
9 Test report	8

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.

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 10776 was prepared by Technical Committee ISO/TC 221, *Geosynthetics*.

Geotextiles and geotextile-related products — Determination of water permeability characteristics normal to the plane, under load

1 Scope

This International Standard describes a method for determining the water permeability characteristics of geotextiles or geotextile-related products normal to the plane when subjected to specific normal compressive loads.

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 2854, *Statistical interpretation of data — Techniques of estimation and tests relating to means and variances*

ISO 5813, *Water quality — Determination of dissolved oxygen — Iodometric method*

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

ISO 10318, *Geosynthetics — Terms and definitions*.

ISO 10320, *Geotextiles and geotextile-related products — Identification on site*

3 Terms and definitions

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

3.1

flow velocity

$v_{N50/\sigma}$

flow velocity normal to the plane at a 50 mm water head under a compressive stress σ (2, 20 and 200 kPa)

NOTE The flow velocity is expressed in metres per second.

4 Principle

The flow of water normal to the plane of a geotextile or geotextile-related product is measured under a range of constant heads under a compressive stress of 2, 20 and 200 kPa.

5 Specimens

5.1 Handling

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

5.2 Selection

Take specimens from the sample according to ISO 9862.