

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

Draft For Comments Only

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भारतीय मानक मसौदा

भूवस्त्रादि और भूवस्त्रादि संबंधित उत्पाद — तरल पदार्थों से प्रतिरोधिता को निर्धारित करने
के लिए जांच परीक्षण विधि
(आई एस 17363 : 2020 का पहला पुनरीक्षण)

Draft Indian Standard

**Geotextiles and geotextile-related products — Screening test methods for
determining the resistance to acid and alkaline liquids**
(*First Revision of IS 17363 : 2020*)

ICS : 59.080.70

Geosynthetics Sectional Committee
, TXD 30

Last date for receipt of comments is
16 October 2024

NATIONAL FOREWORD

(Formal clauses will be added later)

This Indian Standard intended to be adopted is identical with ISO 12960 : 2020 ‘Geotextiles and geotextile-related products — Screening test methods for determining the resistance to acid and alkaline liquids’ issued by the International Organization for Standardization (ISO).

The standard was originally published in 2020. The second revision of the standard has been undertaken to align it with the latest version of ISO 12960 : 2020.

Certain conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In the standard intended to be adopted, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards which are to be substituted in their respective places are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 10318-1 Geosynthetics — Part 1: Terms and definitions	IS 13321 (Part 1) : 2022 Geosynthetics — Part 1 : Terms and definitions	Identical with ISO 10318-1 : 2015

The technical committee has reviewed the provisions of the following International Standards referred in this standard intended to be adopted and has decided that these are acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 3696	Water for analytical laboratory use — Specification and test methods
EN 12226	Geosynthetics — General tests for evaluation following durability testing

In reporting the results of a test or analysis made in accordance with this standard, if the final value, observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)’.

Extract of ISO 12960:2020 ‘Geotextiles and geotextile-related products — Screening test methods for determining the resistance to acid and alkaline liquids’

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 189, *Geosynthetics*, in collaboration with ISO Technical Committee TC 221, *Geosynthetics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO 12960 cancels and replaces ISO/TR 12960:1998, which has been technically revised. This document consolidates ISO/TR 12960:1998 and EN 14030:2001 and replaces both.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

In nearly all applications, geotextiles and geotextile-related products (hereinafter, geotextile products) can be in contact with aqueous solutions of acids, bases or dissolved oxygen. The resistance of geotextile products to these chemicals depends, on the one hand, on polymer formulation, processing, textile structure and the presence of existing damage and, on the other hand, on the composition of the liquid and in situ conditions such as temperature, pressure and the presence of further mechanical stress.

It is the purpose of this document to provide methods of screening (index testing) the resistance of geotextile products to acids and bases.

Since an index test requires exposure times that are short compared to the expected lifetimes of geotextile and geotextile-related products, the process needs to be accelerated. The data obtainable are suitable for screening but not for deriving performance data such as lifetime, unless supported by further evidence.

1 Scope

This document specifies methods for screening the resistance of geotextile and geotextile-related products to liquids while not subjecting them to external mechanical stress.

It is applicable to all geotextiles and geotextile-related products. Method A applies particularly to polyamides and method B to polyesters and polyamides. The test results are intended to be interpreted in the context of site conditions.

This document is intended to be used in conjunction with ISO/TS 13434.

NOTE — This document only considers conditions where the specimens are fully immersed in the liquids. Though outside the scope of this document, the test conditions can be modified to accommodate particular applications, e.g. gaseous media. This document does not preclude use for test specimens that are pre-treated by some method, e.g. by weathering, aqueous extraction conditions or installation damage.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 3696, *Water for analytical laboratory use — Specification and test methods*
- ISO 10318-1, *Geosynthetics — Part 1: Terms and definitions*

- EN 12226, *Geosynthetics — General tests for evaluation following durability testing*

3 Terms and definitions

For the purpose of this document, the terms and definitions given in ISO 10318-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- — ISO Online browsing platform: available at <https://www.iso.org/obp>
- — IEC Electropedia: available at <http://www.electropedia.org/>

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Item, Clause Sub-Clause No. Commented upon (Use Separate Box afresh)	Comments	Specific Proposal (Draft clause to be add/amended)	Remarks	Technical References and justification on which (2), (3), (4) are based
(1)	(2)	(3)	(4)	(5)