INTERNATIONAL STANDARD

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Third edition
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Geosynthetics — Wide-width tensile test

Géosynthétiques — Essai de traction des bandes larges

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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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword — Supplementary information.

The committee responsible for this document is ISO/TC 221, *Geosynthetics.*

This third edition cancels and replaces the second edition (ISO 10319:2008), which has been technically revised.

Geosynthetics — Wide-width tensile test

1 Scope

This International Standard describes an index test method for the determination of the tensile properties of geosynthetics (polymeric, glass, and metallic), using a wide-width strip. This International Standard is applicable to most geosynthetics, including woven geotextiles, nonwoven geotextiles, geocomposites, knitted geotextiles, geonets, geomats, and metallic products. It is also applicable to geogrids and similar open-structure geotextiles, but specimen dimensions might need to be altered. It is not applicable to polymeric or bituminous geosynthetic barriers, while it is applicable to clay geosynthetic barriers.

This International Standard specifies a tensile test method that covers the measurement of load elongation characteristics and includes procedures for the calculation of secant stiffness, maximum load per unit width and strain at maximum load. Singular points on the load-extension curve are also indicated.

Procedures for measuring the tensile properties of both conditioned and wet specimens are included in this International Standard.

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.

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

ISO 3696, *Water for analytical laboratory use — Specification and test methods*

ISO 7500-1, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system*

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

ISO 10318, *Geosynthetics — Terms and definitions*

ISO 10321, *Geosynthetics — Tensile test for joints/seams by wide-width strip method*

EN 10223-3, *Steel wire and wire products for fencing and netting — Part 3: Hexagonal steel wire mesh products for engineering purposes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10318 and the following apply.

3.1
nominal gauge length
initial distance, normally 60 mm (30 mm on either side of the specimen symmetrical centre), between two reference points located on the specimen parallel to the applied load direction

3.2
elongation at preload
measured increase in gauge length (mm) corresponding to an applied load of 1 % of the maximum load

Note 1 to entry: The elongation at preload is indicated as SA in Figure 1.