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Geotechnical investigation and testing - Testing of geotechnical structures - Part 6: Load testing of soil nails and rock bolts (ISO 22477-6:2026)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/26

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EN ISO 22477-6

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English Version

**Geotechnical investigation and testing - Testing of
geotechnical structures - Part 6: Load testing of soil nails
and rock bolts (ISO 22477-6:2026)**

Reconnaissance et essais géotechniques - Essais de
structures géotechniques - Partie 6: Essai de
chargement des clous et des boulons (ISO 22477-
6:2026)

Geotechnische Erkundung und Untersuchung - Prüfung
von geotechnischen Bauwerken und Bauwerksteilen -
Teil 6: Belastungsprüfung von Bodennägeln und
Felsankern (ISO 22477-6:2026)

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 22477-6:2026 (E)

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European foreword

This document (EN ISO 22477-6:2026) has been prepared by Technical Committee ISO/TC 182 "Geotechnics" in collaboration with Technical Committee CEN/TC 341 "Geotechnical Investigation and Testing" the secretariat of which is held by BSI.

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International Standard

ISO 22477-6

Geotechnical investigation and testing — Testing of geotechnical structures —

Part 6: Load testing of soil nails and rock bolts

*Reconnaissance et essais géotechniques – Essais de structures
géotechniques —*

Partie 6: Essai de chargement des clous et des boulons

**First edition
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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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ISO 22477-6:2026(en)**Foreword**

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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 document 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).

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Geotechnical investigation and testing — Testing of geotechnical structures —

Part 6: Load testing of soil nails and rock bolts

1 Scope

This document establishes the specifications for the execution of tension tests to be carried out on soil nails and rock bolts.

NOTE 1 Soil nails and rock bolts are referred to as elements in the scope of this document.

NOTE 2 This document covers but is not limited to grouted soil nails and rock bolts.

NOTE 3 This document does not provide specification for the number of tests, the type of test, the Test Method, the value of the proof load and the limiting criteria. These aspects reside in EN 1997-3 and its national annex or in similar standards.

This document provides specifications for three types of tension tests: investigation tests, suitability tests and acceptance tests.

Two methods of testing are recognised by this document. Test Method A involves step-loaded maintained load tension tests. Test Method B involves constant displacement rate tension tests.

This document provides specifications for the experimental devices, the measurement apparatus, the test procedures, the definition and the presentation of the test results and the content of records, aiming at:

- a) measuring the pull-out resistance of a soil nail or a rock bolt;

NOTE 4 A loading test performed using this document provides the pulled-out resistance along the bonded length, that will possibly differ from the pull-out resistance considered in design.

- b) checking that a soil nail or rock bolt behaves as designed.

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

EN 1990 (series), *Eurocode: Basis of structural and geotechnical design*

EN 1992-1-1, *Eurocode 2: Design of concrete structures*

EN 1993-5, *Eurocode 3: Design of steel structures*

EN 1997 (series), *Eurocode 7: Geotechnical design*

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