

## **Mägironimisvarustus. Kaljuankrud. Ohutusnõuded ja katsemeetodid**

Mountaineering equipment - Rock anchors - Safety requirements and test methods

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 959:2007 sisaldab Euroopa standardi EN 959:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 27.07.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 959:2007 consists of the English text of the European standard EN 959:2007.</p> <p>This document is endorsed on 27.07.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p><b>Käsitlusala:</b> Käesolev standard määrab kindlaks ohutusnõuded ja testimismeetodid mägironimisel ja alpinismis kasutatavatele kaljuankrutele.</p>	<p><b>Scope:</b> This European Standard specifies safety requirements and test methods for rock anchors for use in mountaineering including climbing.</p>
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**Võtmesõnad:** juhised, kinnitusvahendid, materjalid, mehaaniline tugevus, mägironimine, märgistus, ohutus, tehnilised andmed, varustuse kirjeldus, õnnetuste ärahoidmine

English Version

## Mountaineering equipment - Rock anchors - Safety requirements and test methods

Équipement d'alpinisme et d'escalade - Amarrages pour rocher - Exigences de sécurité et méthodes d'essai

Bergsteigerausrüstung - Bohrhaken - Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 10 May 2007.

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## Foreword

This document (EN 959:2007) has been prepared by Technical Committee CEN/TC 136 “Sports, playground and other recreational equipment”, the secretariat of which is held by DIN.

This document supersedes EN 959:1996.

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of an identical text or by endorsement, at the latest by December 2007, and conflicting national standards shall be withdrawn at the latest by December 2007.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

## Introduction

The text of this document is based on the former UIAA-Standard P (Union Internationale des Associations d'Alpinisme), which has been prepared with international participation.

This standard is one of a package of standards for mountaineering equipment, see Annex A.

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## 1 Scope

This European Standard specifies safety requirements and test methods for rock anchors for use in mountaineering including climbing.

## 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.

EN 12275:1998, *Mountaineering equipment — Connectors — Safety requirements and test methods*

ISO 1920-3, *Testing of concrete - Part 3: Making and curing test specimens*

## 3 Terms and definitions

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

### 3.1

#### **rock anchor**

anchoring device intended for repeated use after installation, that is inserted into a drilled hole in the rock and held in place by gluing, or expansion forces, or positive locking, and with an attachment point for a connector (in accordance with 3.1 of EN 12275:1998)

### 3.2

#### **body of the rock anchor**

part of the rock anchor that will be installed in the rock

### 3.3

#### **hanger**

attachment point capable of being separated from the body of a rock anchor

### 3.4

#### **installed length**

distance from the rock surface to the furthest point of the body in mechanical contact with the rock or bonded to the rock, after installation

## 4 Safety requirements

### 4.1 Materials

All parts of a rock anchor shall be manufactured from the same material.

NOTE Depending on environmental factors, rock anchors are potentially liable to suffer from corrosion. Information on the choice of materials and the need for inspection and maintenance is given in Annex B.

### 4.2 Design

**4.2.1** The overall thickness of the border of the eye shall be 3 mm. If the edges are bevelled, the remaining inner surface shall have a minimum width of 2 mm.