

Surfaces for sports areas - Test method for the determination of the resistance to dynamic fatigue of shock pads and sports surfaces

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 17324:2020 sisaldab Euroopa standardi EN 17324:2020 ingliskeelset teksti.	This Estonian standard EVS-EN 17324:2020 consists of the English text of the European standard EN 17324:2020.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

Surfaces for sports areas - Test method for the
determination of the resistance to dynamic fatigue of
shock pads and sports surfaces

Sols sportifs - Méthode d'essai visant à déterminer la
résistance à la fatigue dynamique des couches de
souplesse et des sols sportifs

Sportböden - Prüfverfahren zur Bestimmung der
Widerstandsfähigkeit gegen dynamische Ermüdung
von elastifizierenden Schichten und Sportflächen

This European Standard was approved by CEN on 2 March 2020.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (EN 17324:2020) has been prepared by Technical Committee CEN/TC 217 “Surfaces for sports areas”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by November 2020, and conflicting national standards shall be withdrawn at the latest by November 2020.

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1 Scope

This document specifies a method of test for the determination of resistance to dynamic fatigue of shockpads (including elastic layers) used in synthetic turf surfacing systems. It can also be used on other types and complete forms of sports surfacing systems.

The test is undertaken on test specimens in the laboratory.

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.

EN 1969, *Surfaces for sports areas — Determination of thickness of synthetic sports surfaces*

EN ISO 9863-1, *Geosynthetics — Determination of thickness at specified pressures — Part 1: Single layers (ISO 9863-1)*

EN ISO 3385, *Flexible cellular polymeric materials — Determination of fatigue by constant-load pounding (ISO 3385)*

CEN/TS 16717, *Surface for sports areas — Method of test for the determination of shock absorption, vertical deformation and energy restitution using the advanced artificial athlete*

3 Terms and definitions

No terms and definitions are listed in this document.

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

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

4 Principle

The shockpad or elastic layer is subjected to repeated impacts and any changes in the performance of structure of the shockpad or elastic layer is measured.

5 Apparatus

Dynamic fatigue repeated impact as described in EN ISO 3385, but modified as follows:

- Indenter diameter: 100 mm ± 5 mm
- Indenter radius: 8 mm ± 2 mm
- Maximum impact load: 750 N ± 50 N
- Impact frequency: 10 cycles/min ± 1 cycles/min
- Duration of test: 10 000 cycles ± 100 cycles or as stated in the product specification

The principles of the test are illustrated in Figure 1.