

**Elastsed poorsed polümeermaterjalid. Väsimuse
määramine konstantse koormusega tampimisel**

**Flexible cellular polymeric materials - Determination of
fatigue by constant-load pounding (ISO 3385:2014)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 3385:2014 sisaldab Euroopa standardi EN ISO 3385:2014 inglisekeelset teksti.	This Estonian standard EVS-EN ISO 3385:2014 consists of the English text of the European standard EN ISO 3385:2014.
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English Version

Flexible cellular polymeric materials - Determination of fatigue by
constant-load pounding (ISO 3385:2014)

Matériaux polymères alvéolaires souples - Détermination de
la fatigue par indentation à charge constante (ISO
3385:2014)

Weich-elastische polymere Schaumstoffe - Bestimmung der
Ermüdung im Dauerschwingversuch mit Stoßbelastung
unter konstanter Kraft (ISO 3385:2014)

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Foreword

This document (EN ISO 3385:2014) has been prepared by Technical Committee ISO/TC 45 "Rubber and rubber products" in collaboration with Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by NBN.

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of an identical text or by endorsement, at the latest by January 2015, and conflicting national standards shall be withdrawn at the latest by January 2015.

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Endorsement notice

The text of ISO 3385:2014 has been approved by CEN as EN ISO 3385:2014 without any modification.

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Flexible cellular polymeric materials — Determination of fatigue by constant-load pounding

1 Scope

This International Standard specifies a method for the determination of loss in thickness and loss in hardness of flexible cellular materials intended for use in load-bearing applications such as upholstery.

It provides a means of assessing the service performance of flexible cellular materials based on rubber latex or polyurethane used in load-bearing upholstery.

The method is applicable both to standard size test pieces cut from slabstock material and to shaped components. The measured loss in thickness and loss in hardness are related to, but are not necessarily the same as, the losses likely to occur in service.

This international Standard is not intended to function as a detailed engineering design specification for fatigue apparatus.

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 2439:2008, *Flexible cellular polymeric materials — Determination of hardness (indentation technique)*

3 Principle

Repeated indentation of a test piece by an indenter smaller in area than the test piece, the maximum load reached during each cycle being kept within specified limits. The typical loading cycle is shown in [Figure A.1](#).

4 Apparatus

4.1 Pounding test machine of either Type A (see [4.2](#)) or Type B (see [4.3](#)), having the following parts.

4.1.1 Plane platen, capable of fully supporting the test piece, and suitably vented with holes approximately 6 mm in diameter at approximately 20 mm pitch in order to allow air to escape from the test piece.

4.1.2 Indenter, having an overall diameter of $250 \text{ mm} \pm 1 \text{ mm}$ with a $25 \text{ mm} \pm 1 \text{ mm}$ radius at its lower edge, provided with a device for applying a maximum force of $750 \text{ N} \pm 20 \text{ N}$ during the loading cycle. The indenter shall be rigidly fixed to its guide and its surface shall be smooth but not polished.

The machine shall be capable of oscillating either the platen ([4.1.1](#)) carrying the test piece, or the indenter towards the other in a vertical direction at a rate of (70 ± 5) strokes per minute. The amplitude of the stroke shall be adjustable.

The indenter shall be linked to a re-settable counting device which displays the number of compression cycles performed during the test.