

ÜHEKOMPONENTSE VAHU ISELOOMUSTAMINE. OSA 4:
MEHAANILINE TUGEVUS

Characterisation of one component foam - Part 4:
Mechanical strength

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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English Version

Characterisation of one component foam - Part 4: Mechanical strength

Caractérisation des mousses monocomposants - Partie
4 : Résistance mécanique

Charakterisierung von Einkomponentenschäumen -
Teil 4: Mechanische Festigkeit

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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European foreword

This document (EN 17333-4:2020) has been prepared by Technical Committee CEN/TC 193 “Adhesives”, the secretariat of which is held by UNE.

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of an identical text or by endorsement, at the latest by September 2020, and conflicting national standards shall be withdrawn at the latest by September 2020.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document is one of the product European Standards within the framework series of EN 17333 on Characterization of one component foam, as follows:

- *Part 1: Foam yield characteristics;*
- *Part 2: Expansion characteristics;*
- *Part 3: Application;*
- *Part 4: Mechanical strength (this document);*
- *Part 5: Insulation.*

This document is one of a series of standards which specify test methods for determining the properties of one component foams (OCFs).

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1 Scope

This document specifies test methods for the evaluation of the mechanical properties for moisture curing, self-curing activatable or water drying foams dispensed from single pressurized foam containers.

This document does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this document to establish appropriate safety and health practices and determine the applicability of regulatory requirements prior to use.

The following test methods are described:

- Method 1 – Compression strength: This test method describes how to determine the compressive strength of a cured foam. It gives an indication of the foams resistance against area distributed pressure. The maximum endurable stress is determined.
- Method 2 – Movement capability: This test method describes how to determine the movement capability of cured foam. The result gives an indication of the degree of flexibility of the cured foam.
- Method 3 – Bonding strength: The method displays the measurement of the bonding power of a One Component (Foam) Adhesive, dispensed from a pressurized foam container, between two substrates with direct contact.
- Method 4 – Tensile strength: This test method describes how to determine the maximum stress a cured foam can withstand while being stretched before breaking. The result gives an indication of the elasticity of the cured foam.
- Method 5 – Shear strength: This method displays the behaviour of a foam system towards shear forces. It shows the strength and the bonding power of the foam as the sandwich element between wooden plates. The test is conducted according to EN 12090.

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 205:2016, *Adhesives - Wood adhesives for non-structural applications - Determination of tensile shear strength of lap joints*

EN 312, *Particleboards - Specifications*

EN 923, *Adhesives - Terms and definitions*

EN 15006, *Metal aerosol containers - Aluminium containers - Dimensions of the 25,4 mm aperture*

EN 14847, *Aerosol containers - Tinplate containers - Dimensions of the 25,4 mm aperture*

EN ISO 844, *Rigid cellular plastics - Determination of compression properties (ISO 844)*