BS EN 13494:2019

BSI Standards Publication

Thermal insulation products for building applications — Determination of the tensile bond strength of the adhesive and of the base coat to the thermal insulation material

National foreword

This British Standard is the UK implementation of EN 13494:2019. It supersedes BS EN 13494:2002, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee B/540, Energy performance of materials components and buildings.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Date	Text affected

EUROPEAN STANDARD

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EN 13494

September 2019

ICS 91.100.60

Supersedes EN 13494:2002

English Version

Thermal insulation products for building applications - Determination of the tensile bond strength of the adhesive and of the base coat to the thermal insulation material

Produits isolants thermiques pour le bâtiment - Détermination de l'adhérence par traction de la colle ou de la couche de base sur le matériau isolant thermique

Wärmedämmstoffe für das Bauwesen - Bestimmung der Haftzugfestigkeit zwischen Klebemasse/Klebemörtel und Wärmedämmstoff sowie zwischen Unterputz und Wärmedämmstoff

This European Standard was approved by CEN on 19 May 2019.

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

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European foreword

This document (EN 13494:2019) has been prepared by Technical Committee CEN/TC 88 “Thermal insulating materials and products”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by March 2020, and conflicting national standards shall be withdrawn at the latest by March 2020.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 supersedes EN 13494:2002.

EN 13494:2019 includes the following significant technical changes with respect to EN 13494:2002:

	2002	2019
Scope	adhesive or base coat	adhesive, reinforced base coat or rendering system
Principle	Test specimen is cut through	Overall est specimen is normally not cut through, but this variant is possible
Rigid plates / Pull head plates and (individual) test specimen dimensions	(200 +- 2 mm) only	(50 +- 1 mm), (100 +- 1 mm), (150 +- 1 mm) or (200 +- 1 mm)
Saw	Mechanical driven circular or band saw	Circular saw, angle grinder or an oscillating cutting device
tensile testing machine	Rate of displacement of (10 +- 1) mm/min	Rate of displacement of (10 +- 1) mm/min or average load increase of 50 N/s
Specimen securing frame	absent	present
Minimum dimensions of test specimen	500 mm x 1000 mm x 60 mm	Depending on the thickness of the thermal insulation used for the overall test specimen
Thermal insulation	No minimum thickness	Minimum thickness of 50 mm
Test procedure	According EN 1607	Normally as described in Figure 2, but according EN 1607 is possible, if the overall test specimen is cut through
Calculation an expression of results	Rounded to the nearest 0,1 kPa	Rounded to the nearest 1 kPa

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

1 Scope

This document specifies the test apparatus, materials and procedures for determining the tensile bond strength of an adhesive, a reinforced base coat or a rendering system to a thermal insulation product for use as components in external thermal insulation composite systems (ETICS).

The test method described in this document is not applicable to PU foam adhesives. For testing such products see EN 17101.

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 1602, *Thermal insulating products for building applications — Determination of the apparent density*

EN 1607, *Thermal insulating products for building applications — Determination of tensile strength perpendicular to faces*

EN 17237,[1] *Thermal insulation products for buildings — External thermal insulation composite systems with renders (ETICS) — Specification*

3 Terms and definitions, symbols and units

3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 17237 and the following apply.

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 http://www.iso.org/obp

3.1.1
individual test specimen
test specimen which is cut out of the overall test specimen

3.2 Symbols and units

For the purposes of this document, the following symbols apply.

σ is the tensile bond strength, kPa;

F is the tensile load at failure, kN;

A is the cross-sectional area of the plate, m^2.

[1] Under preparation. Stage at time of publication: prEN 17237:2018.