Deutsches Institut für Bautechnik

Public-law institution jointly founded by the federal states and the Federation

European Technical Assessment Body for construction products

Member of EOTA
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Designated according to Article 29 of Regulation (EU) No 305/2011 and member of EOTA (European Organisation for Technical Assessment)

European Technical Assessment

ETA-07/0336 of 13 August 2025

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment:	Deutsches Institut für Bautechnik
Trade name of the construction product	Insulation support TFIX-8M
Product family to which the construction product belongs	Plastic anchor for fixing of external thermal insulation composite systems with rendering
Manufacturer	RAWLPLUG S.A. Kwidzynska 6 51-416 WROCLAW POLEN
Manufacturing plant	RAWLPLUG S.A. Kwidzynska 6 51-416 Wroclaw POLAND
This European Technical Assessment contains	14 pages including 3 annexes which form an integral part of this assessment
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of	EAD 330196-01-0604, edition 10/2017
This version replaces	ETA-07/0336 issued on 7 October 2015

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Specific Part

1 Technical description of the product

The insulation support TFIX-8M is a nailed-in anchor which consists of a plastic part made of polypropylene (virgin material) and an accompanying specific nail of galvanised steel. The head of the nail has an additional plastic coating.

The anchor may in addition be combined with the anchor plates KWL 90, KWL 110 and KWL 140.

The product description is given in Annex A.

2 Specification of the intended use in accordance with the applicable European Assessment Document

The performances given in Section 3 are only valid if the anchor is used in compliance with the specifications and conditions given in Annex B.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the anchor of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

3.1 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Characteristic load bearing capacity - Characteristic resistance under tension load - Minimum edge distance and spacing	 See Annex C 1 See Annex B 2
Displacements	See Annex C 2
Plate stiffness	See Annex C 2

3.2 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Point thermal transmittance	See Annex C 2

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with EAD No. 330196-01-0604, the applicable European legal act is: [97/463/EC].

The system to be applied is: 2+

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable European Assessment Document

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

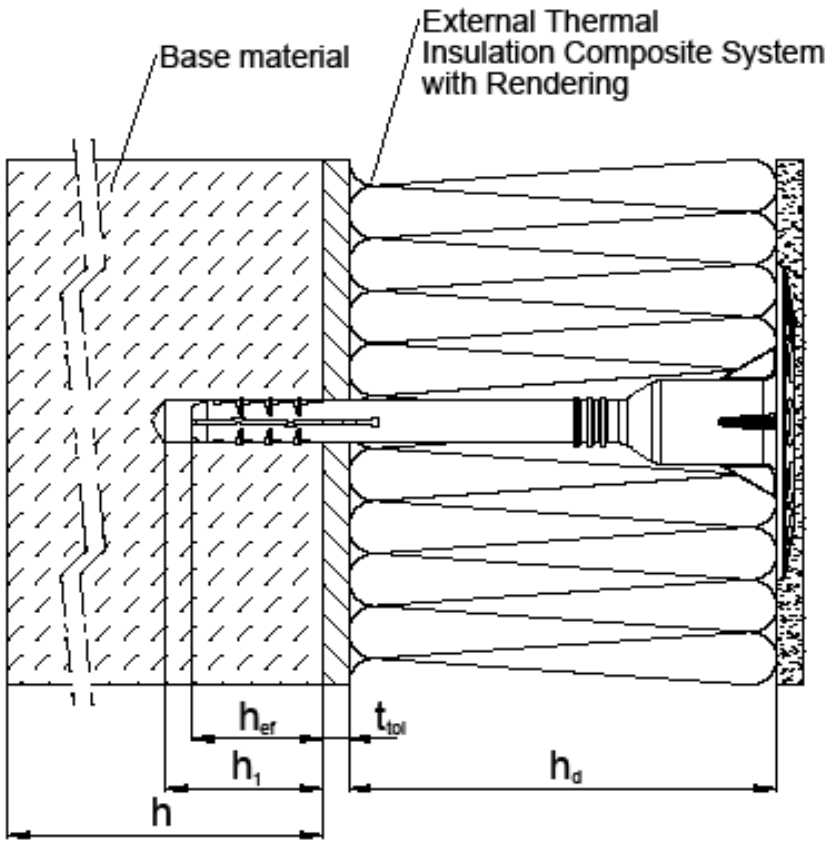
Issued in Berlin on 13 August 2025 by Deutsches Institut für Bautechnik

Dipl.-Ing. Beatrix Wittstock
Head of Section

beglaubigt:
Ziegler

Deutsches Institut für Bautechnik DIBt

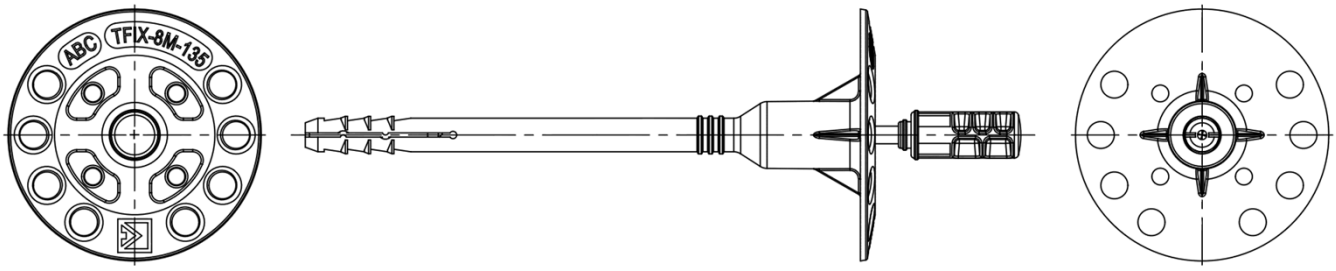
TFIX-8M



Legend

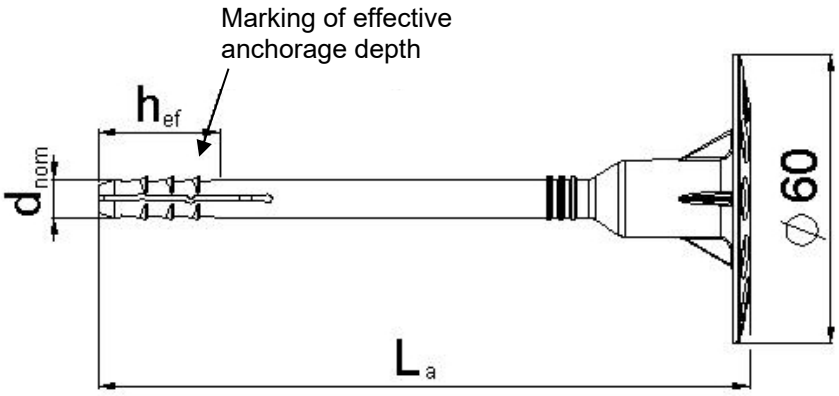
h_{ef} = effective anchorage depth
h = thickness of member (wall)
h_1 = depth of drilled hole to deepest point
h_d = thickness of insulation material
t_{tol} = thickness of equalizing layer or non-load-bearing coating

Insulation support TFIX-8M	Annex A 1
Product description Installed condition	

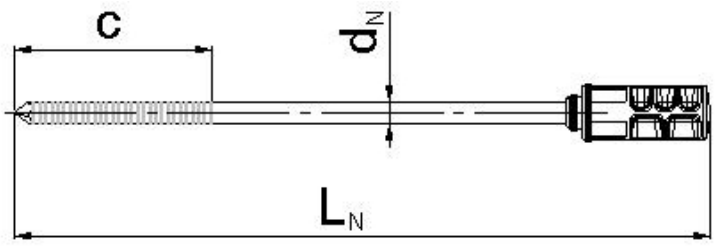


Marking of the anchor plate:
mark of plant
Anchor type (TFIX-8M)
Length of anchor (e.g. 135)

Anchor sleeve



Accompanying expansion nail



Insulation support TFIX-8M	Annex A 2
Product description Anchor sleeve and expansion element	

Table A1: Dimensions [mm]

Anchor type	Anchor sleeve		Accompanying expansion nail	
	d_{nom}	h_{ef}	d_N	c
TFIX-8M	8	25	4,2	45

Various lengths of the anchor are permissible: $L_{a\,min}$ = 75mm; $L_{a\,max}$ = 295mm

Determination of maximum thickness of insulation: $h_d = L_a - t_{tol} - h_{ef}$

e.g. L_a = 135mm
t_{tol} = 10mm

h_d = 135mm - 10mm – 25mm
h_d = 100mm

Table A2: Materials

Name	Materials
Anchor sleeve	Virgin polypropylene Colour: natural
Expansion nail	Galvanized steel ≥ 5 µm according to EN ISO 4042:2022 Head of nail: Coating of polyamide with glass fiber reinforced, colour: natural

Insulation support TFIX-8M	Annex A 3
Product description Dimension, materials	

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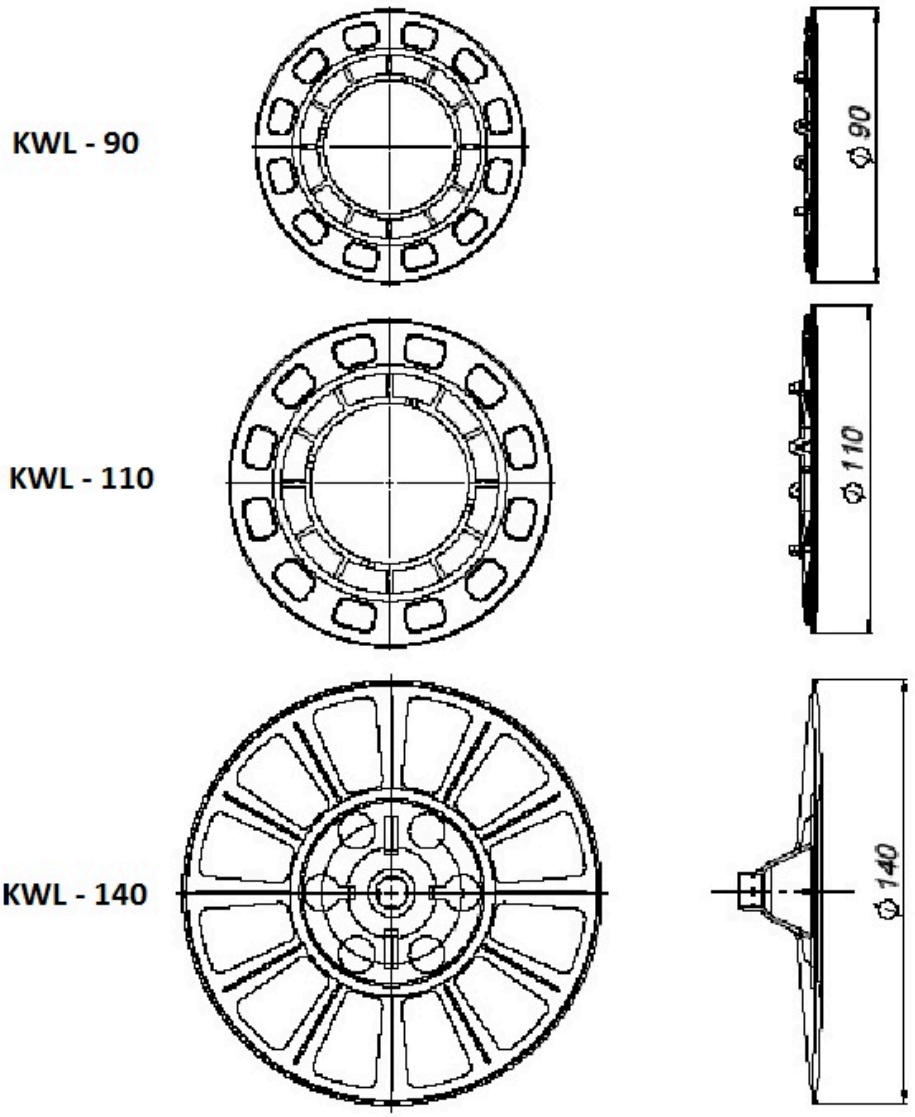

Table A3: Additional plates, diameter and materials

Plate	Diameter	Colour	Materials
KWL-90	90	nature	Virgin polyamide PA 6 + GF, virgin polypropylene PP
KWL-110	110	nature	
KWL-140	140	nature	

Insulation support TFIX-8M	Annex A 4
Product description Slip on plates combined with TFIX-8M	

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Specifications of intended use

Anchorages subject to:

- The anchor may only be used for transmission of wind suction loads and shall not be used for the transmission of dead loads of the thermal insulation composite system.

Base materials:

- Compacted normal weight concrete without fibres (base material group A) according to Annex C 1.
- Solid masonry (base material group B), according to Annex C 1.
- Hollow or perforated masonry (base material group C), according to Annex C 1.
- For other base materials of the base material groups A, B or C the characteristic resistance of the anchor may be determined by job site tests according to EOTA Technical Report TR 051 edition April 2018.

Temperature Range:

- 0°C to +40°C (max. short term temperature +40°C and max. long term temperature +24°C)

Design:

- The anchorages are designed under the responsibility of an engineer experienced in anchorages and masonry work with the partial safety factors γ_M = 2,0 and γ_F = 1,5, if there are no other national regulations.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored. The position of the anchor is indicated on the design drawings.
- Fasteners are only to be used for multiple fixings of thermal insulation composite systems.

Installation:

- Hole drilling by the drill modes according to Annex B 3
- Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.
- Installation temperature from 0°C to +40°C
- Exposure to UV due to solar radiation of the anchor not protected by rendering ≤ 6 weeks

Insulation support TFIX-8M	Annex B 1
Intended use Specifications	

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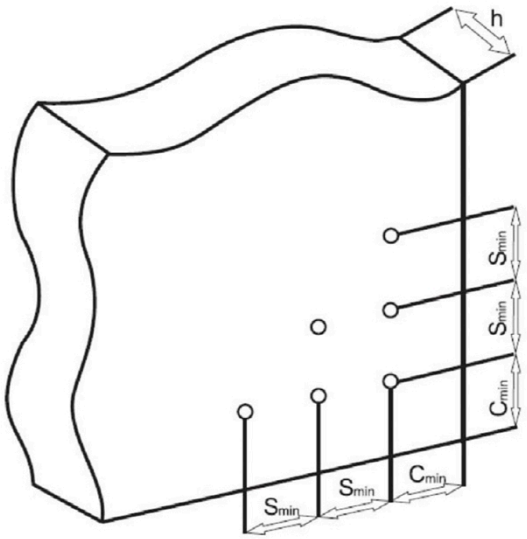
Table B1: Installation parameters

Anchore type		TFIX-8M
Drill hole diameter	d_o = [mm]	8
Cutting diameter of drill but	d_{cut} < [mm]	8,45
Depth of drilled hole to deepest point	h_1> [mm]	35
Effective anchorage depth	h_{ef} ≥ [mm]	25

Table B2: Anchor distances and dimensions of members

Anchore type		TFIX-8M
Minimum spacing	s_{min} = [mm]	100
Minimum edge distance	c_{min} = [mm]	100
Minimum thickness of member	h = [mm]	100

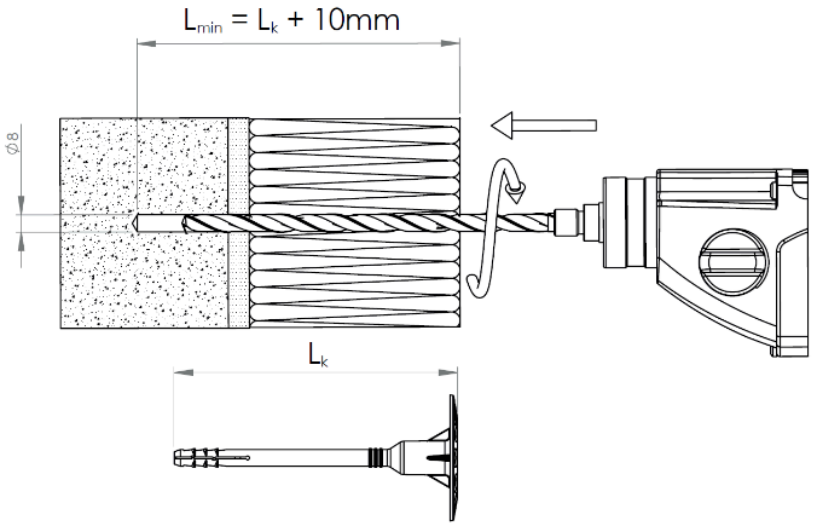
Scheme of distances and spacing



Insulation support TFIX-8M	Annex B 2
Intended use Installation parameters, edge distances and spacing	

Installation instructions

1)



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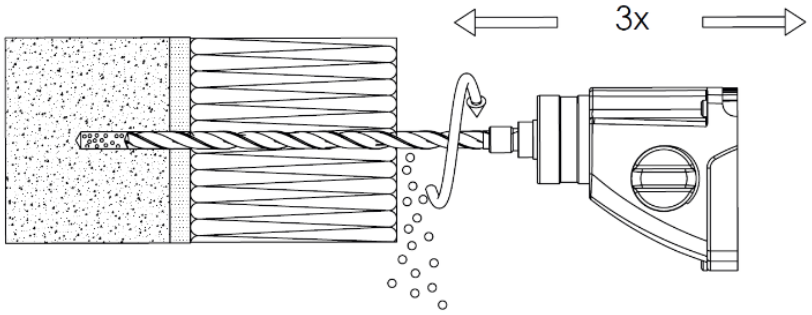

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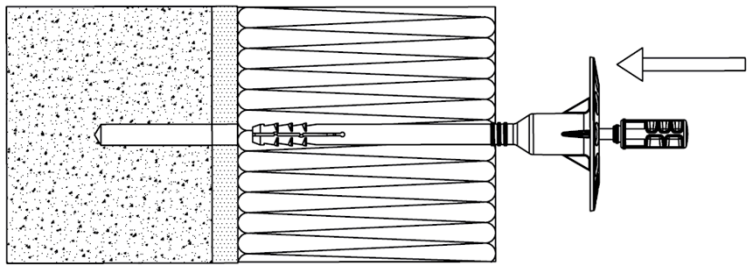

Insulation support TFIX-8M	Annex B 3
Intended use Installation instructions	

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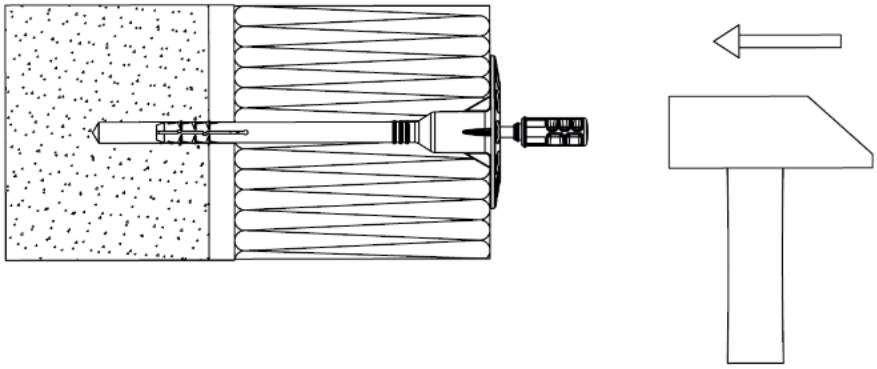
4)



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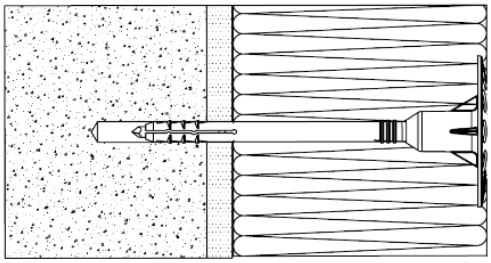

1) Drill hole perpendicular to the substrate surface
2) Clean the drill hole 3x
3) Put TFIX-8M into hole
4) Drive in the anchor with the hammer, the bottom side of the plate must be flush with the ETICS
5) Installed condition of the TFIX-8M

Insulation support TFIX-8M	Annex B 4
Intended use Installation instructions	

Table C1: Characteristic resistance to tension loads N_{Rk} [kN] in concrete and masonry for single anchor

Anchor type					TFIX-8M
Base material	Bulk density ρ [kg/dm³]	Minimum compressive strength f_b [N/mm²]	General remarks	Drilling method 1)	N_{Rk} [kN]
Concrete C12/15 – C50/60 as per EN 206:2013+A1:2016		-	Compacted normal weight concrete without fibres	H	1,2
Clay brick, Mz as per EN 771-1:2011+A1:2015	≥ 2,0	12	Vertically perforation 2) up to 15%	H	1,2
Sand-lime solid bricks (calcium silikate), KS as per EN 771-2:2011+A1:2015	≥ 1,8	12	Vertically perforation 2) up to 15%	H	1,2
Sand-lime solid bricks (calcium silikate), KSL as per EN 771-2:2011+A1:2015	≥ 1,6	12	Vertically perforation 2) > 15% and ≤ 50% outer web thickness ≥ 20 mm 3)	H	0,9
Perforated clay bricks, HLz as per EN 771-1:2011+A1:2015	≥ 1,0	12	Vertically perforation 2) > 15% and ≤ 50% outer web thickness ≥ 14 mm 3)	D	0,6
Lightweight concrete solid block, Vbl as per EN 771-3:2011+A1:2015	≥ 0,7	4	Proportion of handle hole to resting area up to 10%, maximum size of handle hole: length = 110 mm width = 45 mm	D	0,3
Lightweight concrete hollow block, Hbl, as per EN 771-3:2011+A1:2015	≥ 0,9	2	outer web thickness ≥ 35 mm 3)	D	0,5
Lightweight concrete solid brick, V as per EN 771-3:2011+A1:2015	≥ 1,2	6	Proportion of handle hole to resting area up to 10%, maximum size of handle hole: length = 110 mm width = 45 mm	H	0,5

1) H = hammer drill, D = rotary drill

2) Cross section reduced by perforation vertically to the resting area

3) The value for N_{Rk} applies only for the given minimum outer web thickness; otherwise the characteristic resistance shall be determined by job site pull-out tests.

Insulation support TFIX-8M	Annex C 1
Performances Characteristic resistance of the anchor	

Table C2: Point thermal transmittance according EOTA Technical Report TR 025:2016-05

Anchor type	Insulation thickness h_d [mm]	Point thermal transmittance χ [W/K]
TFIX-8M	50 - 270	0,002

Table C3: Plate stiffness according EOTA TR 026:2016-05

Anchor type	Diameter of the anchor plate [mm]	Load resistance of the anchor plate [kN]	Plate stiffness [kN/mm]
TFIX-8M	60	1,75	1,0

Table C4: Displacements

Anchor type	Bulk density ρ [kg/dm³]	Minimum compressive strength f_b [N/mm²]	Tension load N [kN]	Displacements $\Delta \delta_N$ [mm]
Concrete C12/15 - C50/60 (EN 206:2013+A1:2016)			0,40	0,5
Clay brick, Mz (EN 771-1:2011+A1:2015)	≥ 2,0	12	0,40	0,7
Sand-lime solid bricks (calcium silikate), KS (EN 771-2:2011+A1:2015)	≥ 1,8	12	0,40	0,8
Sand-lime solid bricks (calcium silikate), KSL (EN 771-2:2011+A1:2015)	≥ 1,4	12	0,30	0,4
Perforated clay bricks, HLz (EN 771-1:2011+A1:2015)	≥ 1,0	12	0,20	0,6
Lightweight concrete solid block, Vbl (EN 771-3:2011+A1:2015)	≥ 0,7	4	0,10	0,2
Lightweight concrete hollow block, Hbl (EN 771-3:2011+A1:2015)	≥ 0,9	2	0,15	0,3
Lightweight concrete solid brick, V (EN 771-3:2011+A1:2015)	≥ 1,2	6	0,15	0,3