

PROHLÁŠENÍ O VLASTNOSTECH

DoP 0325

pro fischer TermoZ PN 8 (Plastové hmoždinky pro použití do betonu a zdiva)

CS

| | | |
|--|--|-------------------|
| 1. <u>Jedinečný identifikační kód typu výrobku:</u> | DoP 0325 | |
| 2. <u>Zamýšlené/zamýšlená použití:</u> | Zatloukáací plastová kotva pro ukotvení vnějších kontaktních tepelně izolačních kompozitních systémů s omítkou do betonu a zdiva, Viz. dodatek, obzvláště Přílohy B1- B3. | |
| 3. <u>Výrobce:</u> | fischerwerke GmbH & Co. KG, Klaus-Fischer-Str. 1, 72178 Waldachtal, Německo | |
| 4. <u>Zplnomocněný zástupce:</u> | – | |
| 5. <u>Systém/systémy POSV:</u> | 2+ | |
| 6. <u>Evropský dokument pro posuzování:</u> | EAD 330196-01-0604, Edition 10/2017 | |
| Evropské technické posouzení: | ETA-09/0171; 2022-10-18 | |
| Subjekt pro technické posuzování: | DIBt- Deutsches Institut für Bautechnik | |
| Oznámený subjekt/oznámené subjekty: | 2873 TU Darmstadt | |
| 7. <u>Deklarovaná vlastnost/Deklarované vlastnosti:</u> | | |
| Bezpečnost při používání (BWR 4) | | |
| Charakteristická únosnost: | Charakteristická únosnost při zatížení tahem: | Příloha C1 |
| | Minimální okrajová vzdálenost: | Příloha B2 |
| | Minimální osová vzdálenost: | Příloha B2 |
| Posuny: | Zatížení tahem s dílčím součinitelem: | Příloha C2 |
| | Posuny: | Příloha C2 |
| Tuhost rozšiřujícího talíře: | Průměr rozšiřujícího talíře: | Příloha C2 |
| | Odolnost rozšiřujícího talíře proti zatížení: | Příloha C2 |
| | Tuhost rozšiřujícího talíře: | Příloha C2 |
| Úspora energie a retence tepla (BWR 6) | | |
| Prostup tepla: | Bodový číselník prostupu tepla kotvy: | Příloha C2 |
| | Tloušťka izolační vrstvy ETICS: | Příloha C2 |
| 8. <u>Příslušná technická dokumentace a/nebo specifická technická dokumentace:</u> | – | |

Vlastnosti výše uvedeného výrobku jsou ve shodě se souborem deklarováných vlastností. Toto prohlášení o vlastnostech se v souladu s nařízením (EU) č. 305/2011 vydává na výhradní odpovědnost výrobce uvedeného výše.

Podepsáno za výrobce a jeho jménem:



Dr.-Ing. Oliver Geibig, Výkonný ředitel pro obchodní jednotky a inženýrství
Tumlingen, 2022-11-14



Jürgen Grün, Výkonný ředitel pro chemii a kvalitu

Toto PoV bylo připraveno v různých jazykových mutacích. V případě rozporu vždy rozhoduje interpretace verze v anglickém jazyce.

Příloha obsahuje nepovinné a doplňkové informace v anglickém jazyce nad rámec zákonných požadavků.

Specific part

1 Technical description of the product

The fischer nailed-in anchor TermoZ PN 8 consists of a plastic sleeve made of polypropylene, a plate and an accompanying specific nail made of glass fibre reinforced polyamide.

The anchor may in addition be combined with the anchor plates DT 90, DT 110 and DT 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 verification 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 <ul style="list-style-type: none">- 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)

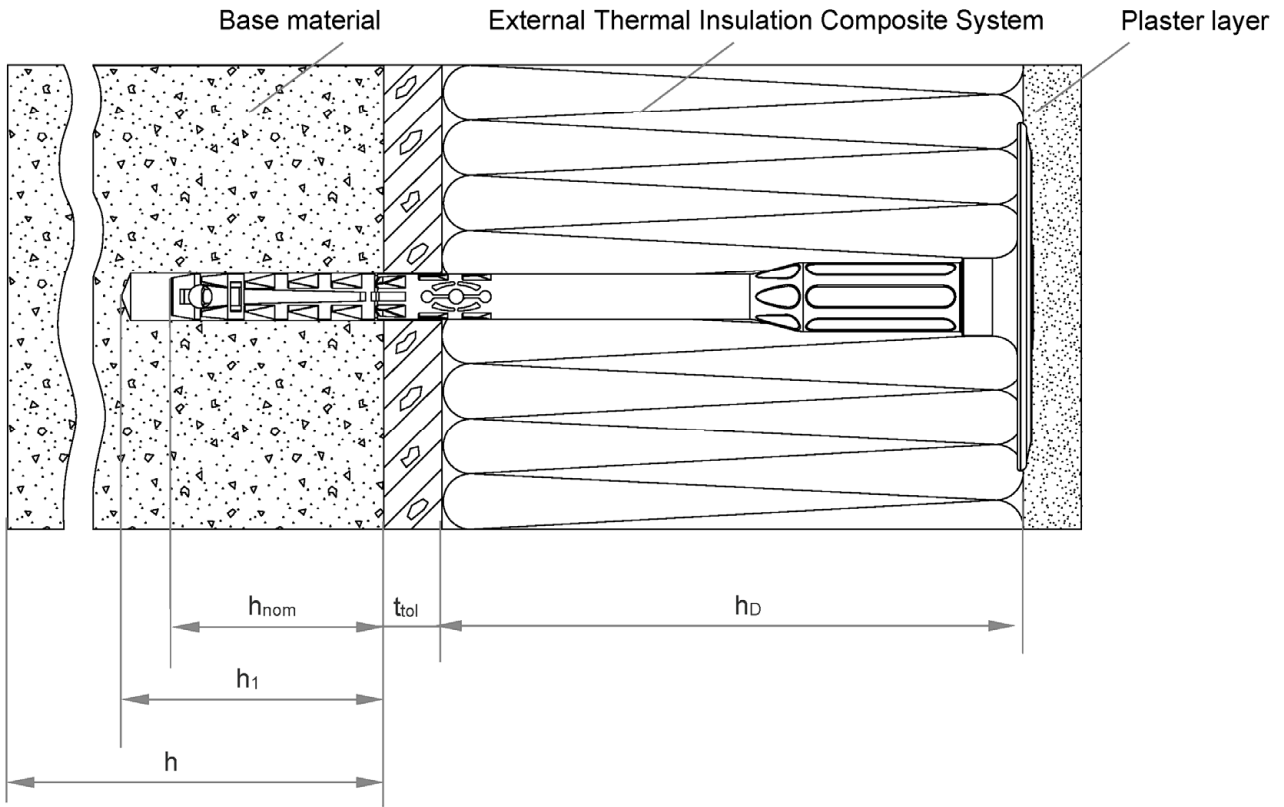
| Essential characteristic | Performance |
|-----------------------------|---------------|
| Point thermal transmittance | See Annex C 2 |

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+

TermoZ PN 8



Legend

- h_{nom} = Overall plastic anchor embedment depth in the base material
- h_1 = Depth of drilled hole to deepest point
- h = Thickness of member (wall)
- h_D = Thickness of insulation material
- t_{tol} = Thickness of equalising layer and / or non-load bearing coating

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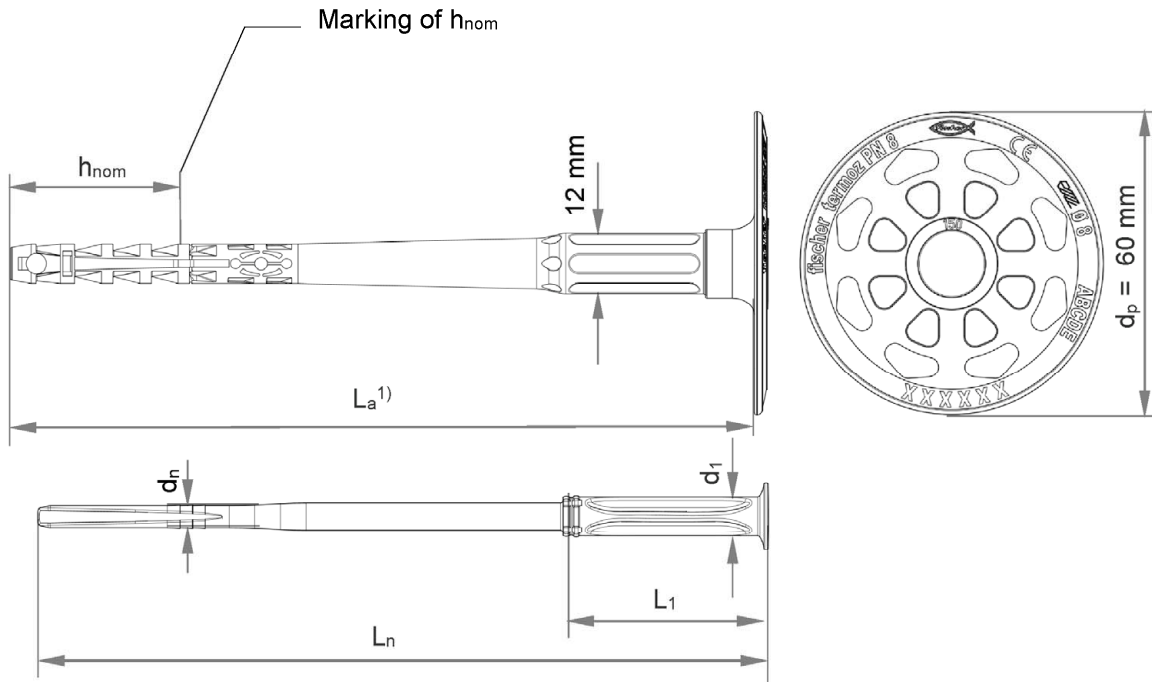
fischer TermoZ PN 8

Product description
Installed anchor

Annex A 1

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TermoZ PN 8



1) Various length of the anchors are possible.

TermoZ PN 8 :

$L_{a \min} \geq 110 \text{ mm}$; $L_{a \max} \leq 230 \text{ mm}$

$L_a = \text{length of accompanying specific nail } L_n + 5 \text{ mm}$

Table A2.1: Dimensions

| Anchor typep | Anchor sleeve | | Accompanying specific plastic nail | | |
|--------------|---------------|---------------------|------------------------------------|---------------|---------------|
| | d_d [mm] | h_{nom} [mm] | d_n [mm] | L_1 [mm] | d_1 [mm] |
| TermoZ PN 8 | 8 | 35/55 ²⁾ | 4,4 | 40 | 8 |

2) Only for base material group „D“ and „E“.

Determination of max. thickness of insulation:

$$\max. h_D = L_a - h_{nom} - t_{tol}$$

e.g. for TermoZ PN 8x150:

$L_a = 148 \text{ mm}$, $h_{nom} = 35 \text{ mm}$, $t_{tol} = 10 \text{ mm}$

$$\max h_D = 148 - 35 - 10 = 103 \text{ mm}$$

recommended $h_D = 100 \text{ mm}$

Figures not to scale

fischer TermoZ PN 8

Product description
Dimensions

Annex A 2

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Table A3.1: Material

| Designation | Material |
|------------------------------|---|
| Anchor sleeve | PP, colour: grey |
| Specific plastic nail | PA6 GF, colour: nature |
| Anchor plate / Slip-on plate | PA6, GF colour: grey, orange, red, green, yellow, blue, mocca-latte, black |

Drawing of the slip-on-plate (e.g. DT 140)

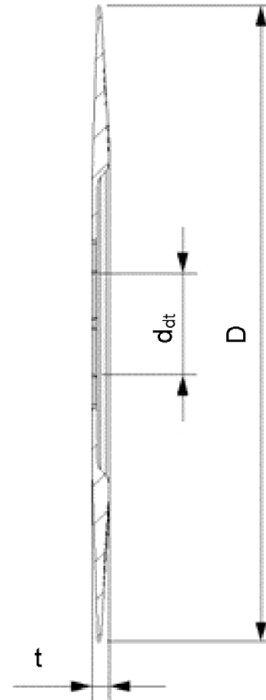
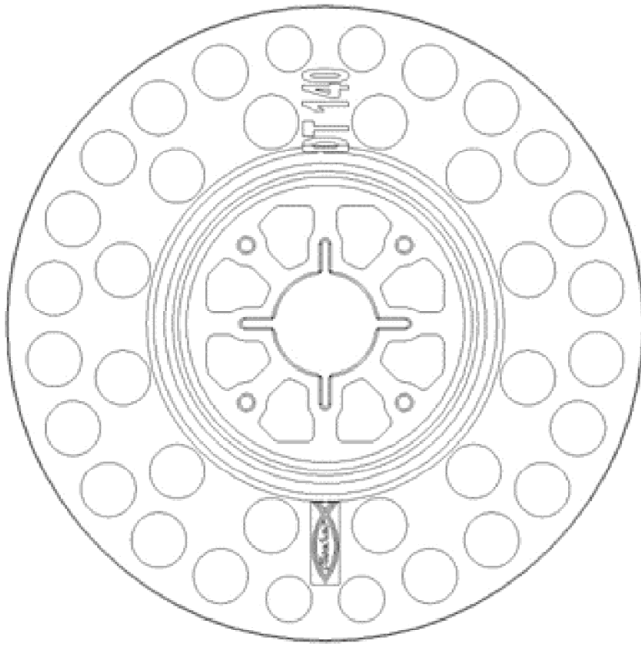


Table A3.2: Slip-on plate, dimensions and material

| Slip-on plate | D [mm] | d _{dt} [mm] | t [mm] |
|-------------------|----------------|----------------------|--------|
| DT 90 / 110 / 140 | 90 / 110 / 140 | 22,5 | 3,9 |

Figures not to scale

fischer TermoZ PN 8

Product description

Material

Dimensions of slip-on plate for the combination with TermoZ PN 8

Annex A 3

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Specifications of intended use

Anchorage 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 external thermal insulation composite system (ETICS).

Base materials:

- Compacted normal weight concrete without fibres, strength classes \geq C12/15 (base material group "A"), in accordance with EN 206, see Annex C1.
- Solid brick masonry (base material group "B") as per EN 771-1, EN 771-2 or EN 771-3, see Annex C1.
- Hollow brick masonry (base material group "C"), as per EN 771-1, EN 771-2 or EN 771-3, see Annex C1.
- Prefabricated reinforced components of lightweight aggregate concrete with open structure (base material group "D") as per EN 1520, see Annex C1.
- Unreinforced autoclaved aerated concrete (base material group "E") as per EN 771-4 and reinforced autoclaved aerated concrete (base material group "E") as per EN 12602, see Annex C1.
- For other comparable base materials of the base material group "A", "B", "C", "D" and "E" the characteristic resistance of the anchor may be determined by job site tests in accordance with EOTA Technical Report TR 051.

Temperature Range:

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

Design:

- The anchorages are designed under the responsibility of an engineer experienced in anchorages and masonry work with the partial safety factors for material related resistances $\gamma_M = 2,0$ and for action loads $\gamma_F = 1,5$ in absence of other national regulations.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored. The position of the anchors is indicated on the design drawings.
- Fasteners are only to be used for multiple fixings of external thermal insulation composite system.

Installation:

- Drilling method according to Annex C1.
- Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters on the site.
- Installation temperature from 0 °C to + 40 °C.
- Exposure to UV due to solar radiation of the anchor not protected by rendering \leq 6 weeks.

fischer TermoZ PN 8

Intended use
Specifications

Annex B 1

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Table B2.1: Installation parameters for base material groups “A” concrete, “B” solid bricks, “C” hollow or perforated bricks, “D” lightweight aggregate concrete and “E” autoclaved aerated concrete

| Anchor type | | TermoZ PN 8 |
|---|---------------------|---------------------|
| Nominal drill hole diameter | $d_0 =$ [mm] | 8 |
| Cutting diameter of drill bit | $d_{cut} \leq$ [mm] | 8,45 |
| Depth of drilled hole to deepest point | $h_1 \geq$ [mm] | 45/65 ¹⁾ |
| Overall plastic anchor embedment depth in the base material | $h_{nom} \geq$ [mm] | 35/55 ¹⁾ |

¹⁾ Only for base material group “D” and “E”.

Table B2.2: Minimum thickness of member, edge distances and spacing in all regulated base material groups

| Anchor type | | TermoZ PN 8 |
|-----------------------------|------------------|-------------|
| Minimum thickness of member | $h_{min} =$ [mm] | 100 |
| Minimum spacing | $s_{min} =$ [mm] | 100 |
| Minimum edge distance | $c_{min} =$ [mm] | 100 |

Scheme of edge distances and spacing
for base material group “A”, concrete, group “B” solid bricks, group “C” hollow or perforated masonry, group “D” lightweight aggregate concrete, group “E” autoclaved aerated concrete

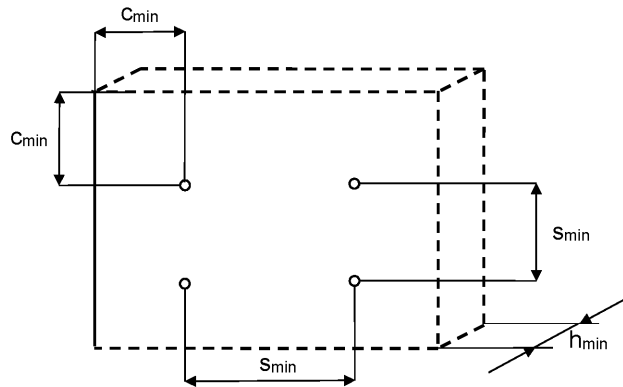


Figure not to scale

fischer TermoZ PN 8

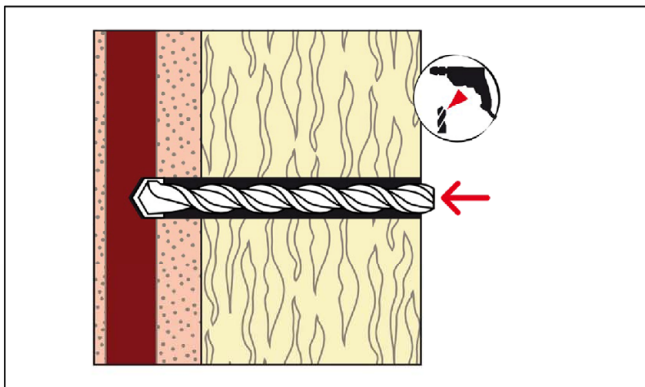
Intended use

Installation parameters depending on the base material groups
Minimum thickness of member, edge distances and spacings

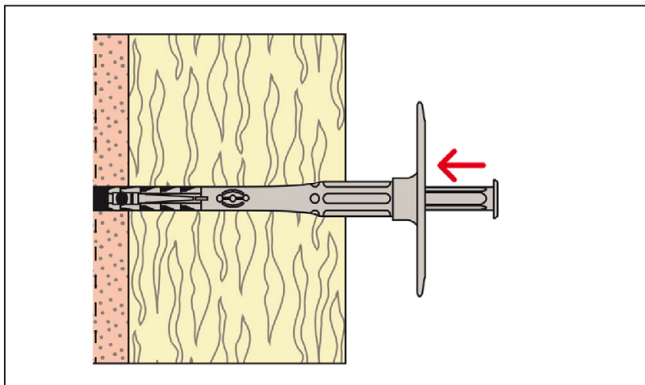
Annex B 2

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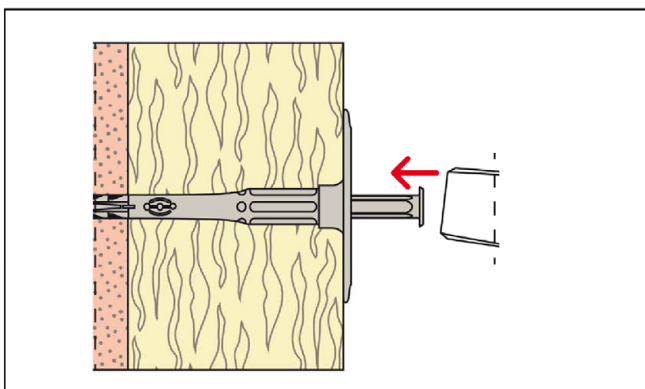
Installation instruction



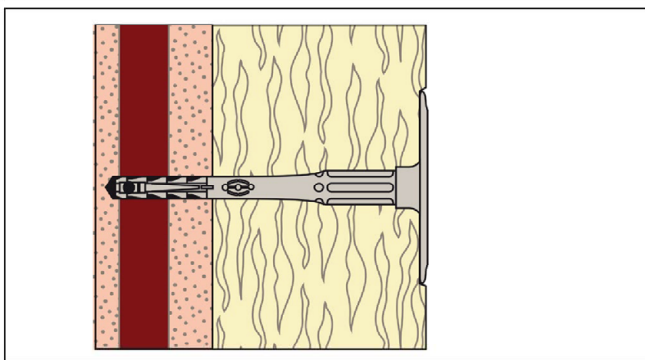
1. Drill hole by corresponding drilling method defined for each stone according to Table C1.1 and drill hole diameter d_0 and depth h_1 according to Table B2.1.



2. Insert anchor manually.



3. Set anchor by hammer blows.



4. Correctly installed anchor.

fischer TermoZ PN 8

Intended use
Installation instruction

Annex B 3

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Table C1.1: Characteristic resistance N_{Rk} to tension loads for single anchor TermoZ PN 8

| Base material | Group | Bulk density ρ [kg/dm ³] | Mean compressive strength / minimum compressive strength single brick as per EN 771 ⁴⁾ [N/mm ²] | Remarks | Drilling method ¹⁾ | Characteristic resistance to tension loads N_{Rk} [kN] |
|---|-----------------|---|---|--|-------------------------------|--|
| Concrete, C12/15 - C50/60 as per EN 206 | A | - | - | - | H | 0,50 |
| Solid Clay bricks, Mz as per EN 771-1 | B ²⁾ | ≥ 2,0 | 15/12 | - | H | 0,60 |
| Calcium silicate solid bricks, KS as per EN 771-2 | B ²⁾ | ≥ 1,8 | 15/12 | - | H | 0,60 |
| Vertically perforated clay, HLz bricks as per EN 771-1 | C ³⁾ | ≥ 1,0 | 15/12 | Exterior web thickness ≥ 12 mm. | R | 0,40 |
| Hollow calcium silicate brick, KSL as per EN 771-2 | C ³⁾ | ≥ 1,4 | 15/12 | Exterior web thickness ≥ 23 mm. | H | 0,40 |
| Lightweight concrete hollow blocks, Hbl as per EN 771-3 | C ³⁾ | ≥ 1,2 | 12,5/10 | Exterior web thickness ≥ 38 mm. | H | 0,50 |
| Lightweight aggregate concrete, LAC as per EN 1520 | D ³⁾ | ≥ 0,9 | 5/4 | Minimum thickness of brick h = 100 mm or minimum exterior web thickness t = 50 mm. | H | 0,30 |
| | | | 7,5/6 | | | 0,40 |
| Unreinforced autoclaved aerated concrete members, AAC as per EN 771-4 Reinforced autoclaved aerated concrete blocks, AAC as per EN 12602 | E | ≥ 0,5 | 5/4 | - | R | 0,30 |
| | | ≥ 0,6 | 7,5/6 | | | 0,40 |

¹⁾ H = Hammer drilling, R = Rotary drilling.

²⁾ Vertically perforation ≤ 15%; cross section reduced by perforation vertically to the resting area.

³⁾ Vertically perforation > 15 % and ≤ 50 %, cross section reduced by perforation vertically to the resting area.

⁴⁾ The compressive strength of the single brick must not be less than 80% of the mean compressive strength.

fischer TermoZ PN 8

Performances

Characteristic resistance to tension load for single anchor

Annex C 1

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Table C2.1: Point thermal transmittance according to EOTA Technical Report TR 025

| Anchor type | Thickness of insulation material h_D [mm] | Point thermal transmittance χ [W/K] |
|-------------|---|--|
| TermoZ PN 8 | 60 - 180 | 0,000 |

Table C2.2: Plate stiffness according to EOTA Technical Report TR 026

| Anchor type | Maximum size of anchor plate d_p [mm] | Load resistance of anchor plate [kN] | Plate stiffness c [kN/mm] |
|-------------|--|---|-----------------------------------|
| TermoZ PN 8 | 60 | 1,7 | 0,6 |

Table C2.3: Displacements TermoZ PN 8

| Base material | Mean compressive strength / minimum compressive strength single brick as per EN 771 ¹⁾ [N/mm ²] | Tension load N [kN] | Displacements $\Delta\delta_N$ [mm] |
|---|---|-------------------------------|---|
| Concrete, C12/15 – C50/60 as per EN 206 | - | 0,15 | 0,20 |
| Clay brick, Mz as per EN 771-1 | 15/12 | 0,20 | 0,20 |
| Calcium silicate solid bricks, KS as per EN 771-2 | 15/12 | 0,20 | 0,30 |
| Vertically perforated clay brick, Hlz as per EN 771-1 | 15/12 | 0,15 | 0,40 |
| Hollow calcium silicate brick, KSL as per EN 771-2 | 15/12 | 0,15 | 0,20 |
| Hollow brick lightweight concrete, Hbl as per EN 771-3 | 12,5/10 | 0,15 | 0,20 |
| Lightweight aggregate concrete, LAC as per EN 1520 | 5/4 | 0,10 | 0,20 |
| | 7,5/6 | 0,13 | |
| Unreinforced autoclaved aerated concrete members, AAC as per EN 771-4 and reinforced autoclaved aerated concrete members, AAC as per EN 12602 | 5/4 | 0,10 | 0,10 |
| | 7,5/6 | 0,13 | 0,20 |

¹⁾ The compressive strength of the single brick must not be less than 80% of the mean compressive strength.

fischer TermoZ PN 8

Performances

Point thermal transmittance and plate stiffness
Displacements

Annex C 2

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