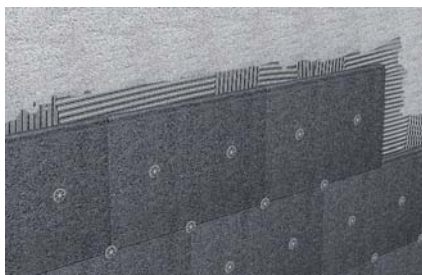


The pre-assembled drive anchor with innovative steel-plastic nail



Additional reinforcement of ETICS



Detail: innovative steel-plastic combination

BUILDING MATERIALS

- Building material classes A, B, C, D, E
- Concrete
- Full blocks made from concrete
- Building brick
- Solid sand-lime brick
- Hollow blocks made from lightweight concrete
- Vertically perforated brick
- Perforated sand-lime brick
- Lightweight aggregate concrete
- Aerated concrete

APPROVALS



ADVANTAGES

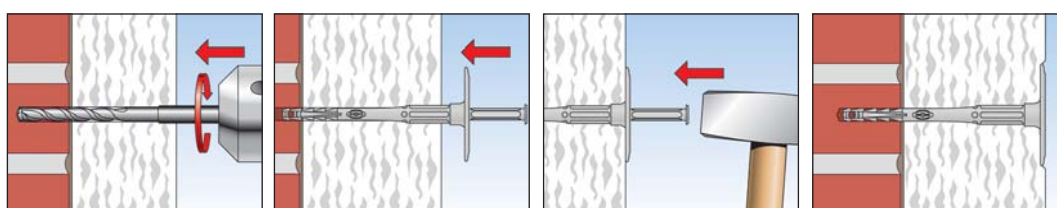
- To set with few hammer blows.
- The disc fits tight into the insulation thanks to its thickness of only 2.5 mm. Thus allows the application of low-cost, thin reinforcement layers.
- High retention forces thanks to the steel tip of the compound nail.
- Small anchoring depth of 35 mm saves on drilling times.
- The FIF-CN II 8 is virtually free of thermal bridging due to the compound nail.
- The compression zone in the shank allows the disc to be drawn in precisely.
- For insulating material thicknesses up to 340 mm.

APPLICATIONS

- Attachment of ETICS insulating boards on concrete and masonry
- Flush-to-surface installation in ETICS insulating materials and mineral wool e.g. polystyrene

FUNCTIONING

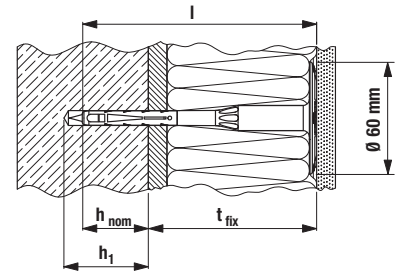
- The fixing is set in push-through installation.
- Simple, fast setting by driving the compound nail in using a standard hammer.
- Non load bearing layers such as adhesive and old plaster are included in the maximum useful length.



TECHNICAL DATA



Render fixing FIF-CN II 8



t_{fix} = thickness of insulation + glue + old render

For building material categorie A, B, C

| Item | Art.-No. | Approval ETA | Drill hole diameter d_0 [mm] | Min. drill hole depth h_1 [mm] | Min. anchorage depth h_{nom} [mm] | Anchor length l [mm] | Max. fixture thickness t_{fix} [mm] | Disc \varnothing [mm] | Sales unit [pcs] |
|-----------------|----------|-----------------|---|---|--|------------------------------|--|----------------------------|---------------------|
| FIF-CN II 8/60 | 546443 | ■ | 8 | 45 | 35 | 108 | 70 | 60 | 100 |
| FIF-CN II 8/80 | 546444 | ■ | 8 | 45 | 35 | 128 | 90 | 60 | 100 |
| FIF-CN II 8/100 | 546445 | ■ | 8 | 45 | 35 | 148 | 110 | 60 | 100 |
| FIF-CN II 8/120 | 546446 | ■ | 8 | 45 | 35 | 168 | 130 | 60 | 100 |
| FIF-CN II 8/140 | 546447 | ■ | 8 | 45 | 35 | 188 | 150 | 60 | 100 |
| FIF-CN II 8/160 | 546448 | ■ | 8 | 45 | 35 | 208 | 170 | 60 | 100 |
| FIF-CN II 8/180 | 546449 | ■ | 8 | 45 | 35 | 228 | 190 | 60 | 100 |
| FIF-CN II 8/200 | 546450 | ■ | 8 | 45 | 35 | 248 | 210 | 60 | 100 |
| FIF-CN II 8/220 | 546451 | ■ | 8 | 45 | 35 | 268 | 230 | 60 | 100 |
| FIF-CN II 8/240 | 546452 | ■ | 8 | 45 | 35 | 288 | 250 | 60 | 100 |
| FIF-CN II 8/260 | 546453 | ■ | 8 | 45 | 35 | 308 | 270 | 60 | 100 |
| FIF-CN II 8/280 | 546454 | ■ | 8 | 45 | 35 | 328 | 290 | 60 | 100 |
| FIF-CN II 8/300 | 546455 | ■ | 8 | 45 | 35 | 348 | 310 | 60 | 100 |
| FIF-CN II 8/320 | 546456 | ■ | 8 | 45 | 35 | 368 | 330 | 60 | 100 |
| FIF-CN II 8/340 | 546457 | ■ | 8 | 45 | 35 | 388 | 350 | 60 | 100 |

For building material categorie D, E

| Item | Art.-No. | Approval ETA | Drill hole diameter d_0 [mm] | Min. drill hole depth h_1 [mm] | Min. anchorage depth h_{nom} [mm] | Anchor length l [mm] | Max. fixture thickness t_{fix} [mm] | Disc \varnothing [mm] | Sales unit [pcs] |
|-----------------|----------|-----------------|---|---|--|------------------------------|--|----------------------------|---------------------|
| FIF-CN II 8/60 | 546443 | ■ | 8 | 65 | 55 | 108 | 50 | 60 | 100 |
| FIF-CN II 8/80 | 546444 | ■ | 8 | 65 | 55 | 128 | 70 | 60 | 100 |
| FIF-CN II 8/100 | 546445 | ■ | 8 | 65 | 55 | 148 | 90 | 60 | 100 |
| FIF-CN II 8/120 | 546446 | ■ | 8 | 65 | 55 | 168 | 110 | 60 | 100 |
| FIF-CN II 8/140 | 546447 | ■ | 8 | 65 | 55 | 188 | 130 | 60 | 100 |
| FIF-CN II 8/160 | 546448 | ■ | 8 | 65 | 55 | 208 | 150 | 60 | 100 |
| FIF-CN II 8/180 | 546449 | ■ | 8 | 65 | 55 | 228 | 170 | 60 | 100 |
| FIF-CN II 8/200 | 546450 | ■ | 8 | 65 | 55 | 248 | 190 | 60 | 100 |
| FIF-CN II 8/220 | 546451 | ■ | 8 | 65 | 55 | 268 | 210 | 60 | 100 |
| FIF-CN II 8/240 | 546452 | ■ | 8 | 65 | 55 | 288 | 230 | 60 | 100 |
| FIF-CN II 8/260 | 546453 | ■ | 8 | 65 | 55 | 308 | 250 | 60 | 100 |
| FIF-CN II 8/280 | 546454 | ■ | 8 | 65 | 55 | 328 | 270 | 60 | 100 |
| FIF-CN II 8/300 | 546455 | ■ | 8 | 65 | 55 | 348 | 290 | 60 | 100 |
| FIF-CN II 8/320 | 546456 | ■ | 8 | 65 | 55 | 368 | 310 | 60 | 100 |
| FIF-CN II 8/340 | 546457 | ■ | 8 | 65 | 55 | 388 | 330 | 60 | 100 |

LOADS

Render fixing FIF-CN II 8 3)

Highest permissible loads for a single anchor^{1) 4)} for fixing of external thermal insulation composite systems with rendering.
For the design the complete assessment ETA-18/0393 has to be considered.

| Base material | Brick raw density ρ [kg/dm ³] | Minimum compressive brick strength f_b [N/mm ²] | Min. embedment depth h_{nom} [mm] | Min. member thickness h_{min} [mm] | Beton und Mauerwerk ⁵⁾ | | |
|--|--|---|---|--|--|-------------------------------|-------------------------------------|
| | | | | | Permissible tensile load ³⁾ | Minimum spacing ²⁾ | Minimum edge distance ²⁾ |
| | | | | | N_{perm} [kN] | s_{min} [mm] | c_{min} [mm] |
| Concrete according to EN 206-1:2000 | | | | | | | |
| FIF-CN II 8 | C12/15 - C50/60 | | 35 ⁶⁾ | 100 | 0,25 | 100 | 100 |
| Solid clay bricks Mz according to EN 771-1:2011 | | | | | | | |
| FIF-CN II 8 | ≥ 2,0 | 12 | 35 ⁶⁾ | 100 | 0,25 | 100 | 100 |
| Vertically perforated clay bricks HLz according to EN 771-1:2011 | | | | | | | |
| FIF-CN II 8 | ≥ 1,0 | 12 | 35 ⁷⁾ | 100 | 0,17 | 100 | 100 |
| Lightweight aggregate concrete LAC according to EN 1520:2011 | | | | | | | |
| FIF-CN II 8 | ≥ 0,8 | 6 | 55 ⁶⁾ | 100 | 0,17 | 100 | 100 |
| Autoclaved aerated concrete blocks AAC according to EN 771-4:2011 | | | | | | | |
| FIF-CN II 8 | ≥ 0,5 | 4 | 55 ⁷⁾ | 100 | 0,10 | 100 | 100 |

¹⁾ The partial safety factors for material resistance as regulated in the assessment as well as a partial safety factor for load actions of $\gamma_L = 1,5$ berücksichtigt.

²⁾ Possible minimum spacing resp. edge distance according to assessment.

³⁾ Plastic anchor for fixing of external thermal insulation composite systems with rendering according to ETAG014. Only tensile wind loads are permitted.

⁴⁾ The given loads are valid for installation and use of fixations in dry base material for temperatures in the substrate up to +24 °C (resp. short term up to +40 °C).

⁵⁾ Restrictions concerning the manufacturer and the permissible hole patterns as well as the web thickness see assessment.

⁶⁾ Drill method hammer drilling.

⁷⁾ Hammer drilling.