

# KI-10 FACADE FIXINGS WITH PLASTIC PIN

Hammerset insulation fixing with reinforced plastic nail



• ETA-07/0291



## Product information

### Features and benefits

- Installation in all substrates (categories A,B,C,D,E).
- The plastic nail reduces heat transmission (value 0.0W/K)
- Plastic nail reinforced with glass fibre allows fast and trouble-free installation with correct expansion of the plug.
- Expansion zone designed for low embedment depths, reducing the amount of drilling required.
- Plate stiffness (value 0.5 kN/mm) ensures smooth elevation surface and stable insulation system.

### Applications

- Polystyrene boards
- Mineral wool
- Light wood wool building boards
- Polyurethane boards
- Wood fibre boards
- Lightweight recycled panels

### Base materials

#### Approved for use in:

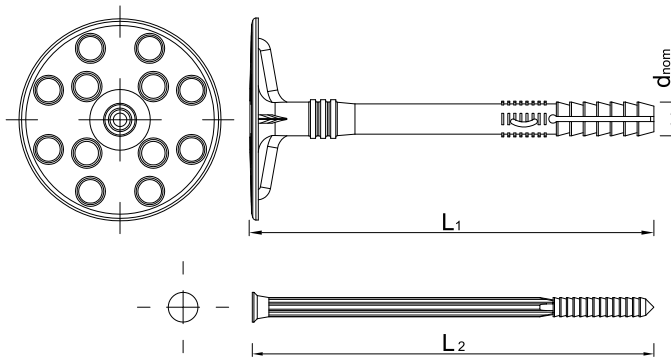
- Concrete C12/15-C50/60 (Use category A)
- Solid Brick (Use category B)
- Solid Sand-lime Brick (Use category B)
- Hollow Sand-lime Brick (Use category C)
- Vertically-perforated clay block (Use category C)
- Hollow Lightweight Concrete Block (Use category C)
- Lightweight Concrete Block (Use category C)

## Installation guide



1. Drill a hole of required diameter and depth
2. Lightly tap the plastic sleeve through the insulation material into hole with a hammer, until fixing depth is reached
3. Lightly tap the plastic nail into the plastic sleeve until fixing is secure and flush with insulation material.
4. Embedment depth of min 25 in masonry, 40mm in perforated materials and 60mm in lightweight concrete block and aerated concrete
5. Drilling depth of min 35 in masonry, 50mm in perforated materials and 70mm in lightweight concrete block and aerated concrete

## Product information



| Size   | Product Code | Fixing   |        |                | Fixture                  |                    |                    |                          |                    |                    |
|--------|--------------|----------|--------|----------------|--------------------------|--------------------|--------------------|--------------------------|--------------------|--------------------|
|        |              | Diameter | Length | Plate diameter | Min. thickness           |                    |                    | Max. thickness           |                    |                    |
|        |              | d        | L      | D              | t <sub>fix</sub> A, B, C | t <sub>fix</sub> D | t <sub>fix</sub> E | t <sub>fix</sub> A, B, C | t <sub>fix</sub> D | t <sub>fix</sub> E |
|        |              | [mm]     | [mm]   | [mm]           | [mm]                     | [mm]               | [mm]               | [mm]                     | [mm]               | [mm]               |
| Ø10    | KI-070       | 10       | 70     | 60             | 35                       | 20                 | 0                  | 55                       | 40                 | 20                 |
|        | KI-090       | 10       | 90     | 60             | 55                       | 40                 | 20                 | 75                       | 60                 | 40                 |
|        | KI-120       | 10       | 120    | 60             | 85                       | 70                 | 50                 | 105                      | 90                 | 70                 |
|        | KI-140       | 10       | 140    | 60             | 105                      | 90                 | 70                 | 125                      | 110                | 90                 |
|        | KI-160       | 10       | 160    | 60             | 125                      | 110                | 90                 | 145                      | 130                | 110                |
|        | KI-180       | 10       | 180    | 60             | 145                      | 130                | 110                | 165                      | 150                | 130                |
|        | KI-200       | 10       | 200    | 60             | 165                      | 150                | 130                | 185                      | 170                | 150                |
| KI-220 | 10           | 220      | 60     | 185            | 170                      | 150                | 205                | 190                      | 170                |                    |

## Installation data

| Substrate                    |                  |      | A, B, C | D   | E   |
|------------------------------|------------------|------|---------|-----|-----|
| Fixing diameter              | d                | [mm] | 10      | 10  | 10  |
| Hole diameter in substrate   | d <sub>0</sub>   | [mm] | 10      | 10  | 10  |
| Min. hole depth in substrate | h <sub>0</sub>   | [mm] | 35      | 50  | 70  |
| Installation depth           | h <sub>nom</sub> | [mm] | 25      | 40  | 60  |
| Min. substrate thickness     | h <sub>min</sub> | [mm] | 100     | 100 | 100 |
| Min. spacing                 | s <sub>min</sub> | [mm] | 100     | 100 | 100 |
| Min. edge distance           | c <sub>min</sub> | [mm] | 100     | 100 | 100 |

## Basic performance data

Performance data for single anchor in tension without influence of edge distance and spacing

| Substrate                            |      | Concrete C12/15 | Concrete min. C16/20 | Solid brick | Sand-lime solid brick | Sand-lime hollow brick | Perforated ceramic brick | Perforated ceramic brick (i.e.) | MEGA MAX | Lightweight concrete hollow block | Lightweight concrete solid block | Aerated concrete |
|--------------------------------------|------|-----------------|----------------------|-------------|-----------------------|------------------------|--------------------------|---------------------------------|----------|-----------------------------------|----------------------------------|------------------|
| Embedment depth h <sub>ef</sub>      | [mm] | 25              | 25                   | 25          | 25                    | 25                     | 40                       | 40                              | 40       | 40                                | 60                               | 60               |
| MEAN ULTIMATE LOAD N <sub>Rt,m</sub> |      |                 |                      |             |                       |                        |                          |                                 |          |                                   |                                  |                  |
| KI-10                                | [kN] | 0.78            | 0.7                  | 0.72        | 0.89                  | 0.96                   | 0.74                     | 0.57                            | 0.67     | 0.75                              | 0.78                             | 0.25             |
| CHARACTERISTIC LOAD N <sub>Rk</sub>  |      |                 |                      |             |                       |                        |                          |                                 |          |                                   |                                  |                  |
| KI-10                                | [kN] | 0.5             | 0.5                  | 0.5         | 0.6                   | 0.6                    | 0.4                      | 0.4                             | 0.3      | 0.4                               | 0.5                              | 0.1              |
| DESIGN LOAD N <sub>Rd</sub>          |      |                 |                      |             |                       |                        |                          |                                 |          |                                   |                                  |                  |
| KI-10                                | [kN] | 0.25            | 0.25                 | 0.25        | 0.3                   | 0.3                    | 0.2                      | 0.2                             | 0.15     | 0.2                               | 0.25                             | 0.05             |
| RECOMMENDED LOAD N <sub>rec</sub>    |      |                 |                      |             |                       |                        |                          |                                 |          |                                   |                                  |                  |
| KI-10                                | [kN] | 0.18            | 0.18                 | 0.18        | 0.21                  | 0.21                   | 0.14                     | 0.14                            | 0.11     | 0.14                              | 0.18                             | 0.04             |

## Basic performance data

| Fixing type                   |         | KI-10 |
|-------------------------------|---------|-------|
| Plate resistance              | [kN]    | 0.86  |
| Plate stiffness               | [kN/mm] | 0.6   |
| Point thermal transmittance ? | [W/K]   | 0     |

## Product Commercial Data

| Size   | Product Code | Fixing        |             |                     | Quantity [pcs] |       |        | Weight [kg] |       |               | Bar Codes     | Art No. |
|--------|--------------|---------------|-------------|---------------------|----------------|-------|--------|-------------|-------|---------------|---------------|---------|
|        |              | Diameter [mm] | Length [mm] | Plate diameter [mm] | Box            | Outer | Pallet | Box         | Outer | Pallet        |               |         |
| Ø10    | KI-070       | 10            | 70          | 60                  | 250            | 250   | 14000  | 2.5         | 2.5   | 167.4         | 5906675210049 | 20206   |
|        | KI-090       | 10            | 90          | 60                  | 250            | 250   | 14000  | 2.5         | 2.5   | 170.0         | 5906675210148 | 20208   |
|        | KI-120       | 10            | 120         | 60                  | 250            | 250   | 12000  | 3.2         | 3.2   | 181.2         | 5906675210247 | 20215   |
|        | KI-140       | 10            | 140         | 60                  | 250            | 250   | 10000  | 4.0         | 4.0   | 190.0         | 5906675210346 | 20221   |
|        | KI-160       | 10            | 160         | 60                  | 250            | 250   | 10000  | 4.2         | 4.2   | 198.0         | 5906675210445 | 20228   |
|        | KI-180       | 10            | 180         | 60                  | 250            | 250   | 7500   | 4.5         | 4.5   | 165.0         | 5906675210544 | 20235   |
|        | KI-200       | 10            | 200         | 60                  | 250            | 250   | 7500   | 5.1         | 5.1   | 181.5         | 5906675210643 | 20242   |
| KI-220 | 10           | 220           | 60          | 250                 | 250            | 7500  | 5.1    | 5.1         | 182.1 | 5906675159126 | 66054         |         |