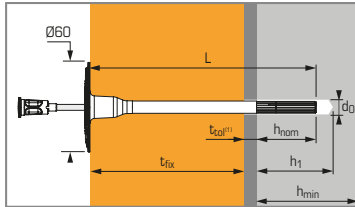




Steel nail hammer-in anchor for fixing expanded polystyrene (EPS) and mineral wool insulation boards in external wall system (ETICS)



ETA 18/1103
EAD 330196-01-0604



⁽¹⁾ t_{gl} = glue thickness (≤ 10 mm) + thickness of equalization layer or non-load bearing coating (≤ 20 mm)

APPLICATION

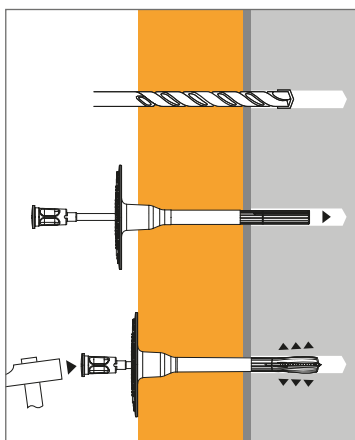
- Fixing all rigid insulation on solid or hollow material

MATERIAL

- Anchor body:** polypropylene⁽¹⁾
- Steel nail:** 5 μ m zinc coated
- Thermal transmittance:** 0.002 W/k
- Plate stiffness :** 0,7 kN/mm
- Temperature range in use:** $\geq 0^{\circ}\text{C}$

⁽¹⁾ Caution: the anchor must be protected from UV rays by a screen (rendering, panelling, etc.)

INSTALLATION



Technical data

Anchor size	Embedment depth	Insulation thickness*	Base material thickness	Drilling depth	Drilling diameter	Total anchor lenght	Code				
	(mm) h_{0m}	(mm) t_{fix}	(mm) h_{min}	(mm) h₁	(mm) d₀	(mm) L	Head Ø60				
8X75/40	25	40	100	35	8	75	054904				
8X95/60		60				95	054905				
8X115/80		80				115	054906				
8X135/100		100				135	054907				
8X155/120		120				155	054908				
8X175/140		140				175	054909				
8X195/160		160				195	054910				
8X215/180		180				215	054911				
8X235/200		200				235	054912				
8X255/220		220				255	054913				
8X275/240		240				275	054914				
8X295/260		260				295	054915				
Plastic washer PP Ø90							057655				
Plastic washer PA 6.6 Ø140							054929				

* t_{fix} calculated with $t_{gl} = 10$ mm

Characteristic loads (N_{Rk}) in kN

TENSILE

Base material	Anchor size $\varnothing 8$ $h_{om} : 25$ mm	N_{Rk}
Concrete (C12/15)		0,7
Concrete (C20/25 to C50/60)		0,9
Solid clay brick - EN 771-1 (fbk = 20 Mpa ⁽¹⁾)		0,9
Calcium silicate solid units - EN 771-2 - fbk = 12 Mpa ⁽¹⁾		0,9
Lightweight concrete solid block - EN 771-3 - fbk = 7 Mpa ⁽¹⁾		0,9
Lightweight concrete hollow block - EN 771-3 - fbk = 4 Mpa ⁽¹⁾		0,9
Lightweight aggregate concrete- EN 1520 (LAC) - fbk = 4 Mpa ⁽¹⁾		0,9
Perforated clay bricks - EN 771-1 - fbk = 10 Mpa ⁽¹⁾		0,3
Vertically perforated clay bricks - NORM B6124 - fbk = 10 Mpa ⁽¹⁾		0,5

⁽¹⁾ For others masonry types, jobsite tests could be performed.

Design loads (N_{Rd}) and recommended loads (N_{rec}) for one anchor without edge or spacing influence in kN

$$N_{Rd} = \frac{N_{Rk}^{(1)}}{\gamma_M}$$

⁽¹⁾ Issue from ETA

$$N_{rec} = \frac{N_{Rk}^{(1)}}{\gamma_M \cdot \gamma_F}$$

TENSILE

Base material	Anchor size $\varnothing 8$ $h_{nom} : 25$ mm	N_{Rd}	N_{rec}
Concrete (C12/15)		0,35	0,25
Concrete (C20/25 to C50/60)		0,45	0,32
Solid clay brick - EN 771-1 (fbk = 20 Mpa ⁽¹⁾)		0,45	0,32
Calcium silicate solid units - EN 771-2 - fbk = 12 Mpa ⁽¹⁾		0,45	0,32
Lightweight concrete solid block - EN 771-3 - fbk = 7 Mpa ⁽¹⁾		0,45	0,32
Lightweight concrete hollow block - EN 771-3 - fbk = 4 Mpa ⁽¹⁾		0,45	0,32
Lightweight aggregate concrete- EN 1520 (LAC) - fbk = 4 Mpa ⁽¹⁾		0,45	0,32
Perforated clay bricks - EN 771-1 - fbk = 10 Mpa ⁽¹⁾		0,15	0,11
Vertically perforated clay bricks - NORM B6124 - fbk = 10 Mpa ⁽¹⁾		0,25	0,18

$\gamma_M = 2$; $\gamma_F = 1,4$

⁽¹⁾ For others masonry types, jobsite tests could be performed.

Spacing data

IN CONCRETE

Minimum distance between anchors and from edges and minimum thickness of concrete member (mm)

S_{min}	C_{min}	h_{min}
100	100	100