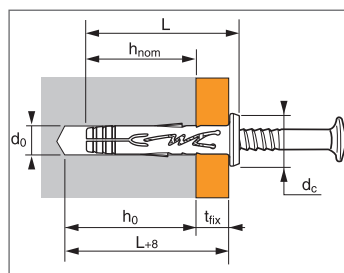




ETA Option 014 n° 06/0032

Use the ETA figures to design ETICS application.



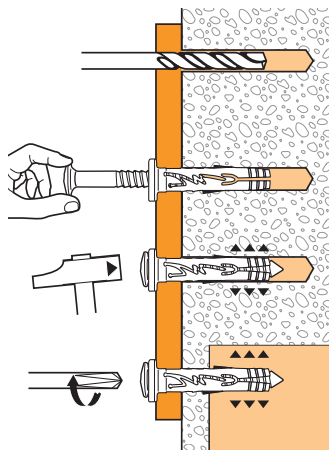
Applications

- Insulation cladding
- Insulation systems
- Drywall track
- Wood
- Flashing
- Electrical accessories
- Collar (Atlas ...)

Material

- Body: polyamide 6
- Expansion nail:
 - FR 15 zinc coated steel (5 µm)
 - A2, stainless steel
- Screw head type: PZ2

Installation



Hammer-set anchor for light duty fixing for concrete and all materials types

Technical data

SPIT HIT M	Embedment depth (mm) h_{nom}	Maximum thickness of part to be fixed in concrete (mm) $t_{fix}^{(1)}$	Minimum thickness of base material (mm) h_{min}	Drilling depth in base material (mm) h_0	Drilling depth forward the part to be fixed (mm) $L+8$	Drilling diameter (mm) d_0	Cylinder head diameter (mm) d_c	Total anchor length (mm) L	Type of nail -	Eurocode	
										Zinc coated steel nail	Stainless steel A2 nail
5-5/27P	20	5	60	30	35	5	9	27	PZ2	050116 050117	
5-15/37P		15			45			37			
6-5/32P		5			40			32			
6-12/39P	25	12	65	35	47	6	11	39	PZ2	050118 050119 050121 050122	050157 050158 050159
6-25/52P		25			60			52			
6-40/67P		40			75			67			
6-12/39V	25	12	65	35	47	6	10	39	PZ2	050129 050131 050132	
6-25/52V		25			60			52			
6-40/67V		40			75			67			
6/5-M6	30	-	65	40	-	6	11	32	M6	050141	
6/5-M7		-			-			32	M7	050142	
8-10/42P	30	10	65	40	50	8	13	42	PZ2	050123	050161 050162 050163
8-30/62P		30			70			62		050124	
8-60/92P		60			100			92		050125	
8-80/112P		80			120			112		050126	
8-100/132P		100			140			132		050127	
8-30/62V	30	30	65	40	70	8	11,5	62	PZ2	050134	
8-60/92V		60			100			92		050135	
8-80/112V		80			120			112		050136	
8-100/132V		100			140			132		050137	

(1) In masonry, the thickness of part to be fixed could fluctuate to ± 5 mm from t_{fix} for $\varnothing 5$ et 6 mm, and to ± 10 mm for $\varnothing 8$ mm, to ensure a good contact between collar and the part to be fixed.

P = Flat sleeve head V = Countersunk sleeve head

Ultimate loads ($N_{Ru,m}$, $V_{Ru,m}$)

TENSILE IN kN

SHEAR IN kN

Base material \ Anchor size	Ø5	Ø6	Ø8			5/5	6/5	6/40	8/10	8/80
						5/15	6/12 6/25		8/30 8/60	8/100
Concrete (C20/25)										
	N _{Ru,m}	0,60	0,90	1,2	V _{Ru,m}	1,9	2,8	2,25	4,3	3,55
Solid concrete blocks type B120 (fc = 13,5 N/mm²)										
	N _{Ru,m}	0,30	0,40	0,50	V _{Ru,m}	1,9	2,8	2,25	4,3	3,55
Clay bricks (fc = 55 N/mm²)										
	N _{Ru,m}	0,20	0,80	1,2	V _{Ru,m}	1,9	2,8	2,25	4,3	3,55
Hollow concrete blocks type B40 not rendered (fc = 6,5 N/mm²)										
	N _{Ru,m}	0,20	0,30	1,2	V _{Ru,m}	1,9	2,25	2,25	2,8	2,8
Hollow concrete blocks type B40 rendered (fc = 6,5 N/mm²)										
	N _{Ru,m}	0,95	1,70	2,25	V _{Ru,m}	1,9	2,25	2,25	2,8	2,8
Hollow clay bricks type Eco-30 not rendered (fc = 4,5 N/mm²)										
	N _{Ru,m}	0,30	0,40	0,50	V _{Ru,m}	0,55	0,75	0,75	0,9	0,9
Hollow clay bricks type Eco-30 rendered (fc = 4,5 N/mm²)										
	N _{Ru,m}	0,95	1,30	1,70	V _{Ru,m}	0,9	1,1	1,3	1,7	1,7
Engineered clay bricks not rendered (fc = 14,5 N/mm²)										
	N _{Ru,m}	0,55	0,75	0,95	V _{Ru,m}	1,9	2,25	2,25	2,8	2,8
Engineered clay bricks rendered (fc = 14,5 N/mm²)										
	N _{Ru,m}	0,95	1,30	1,70	V _{Ru,m}	1,9	2,25	2,8	4,3	3,55
Aerated concrete (Mvn = 500 kg/m³)										
	N _{Ru,m}	0,15	0,2	0,3	V _{Ru,m}	0,15	0,2	0,2	0,3	0,3
Plasterboard type BA13										
	N _{Ru,m}	0,15	0,15	0,18	V _{Ru,m}	0,15	0,15	0,15	0,18	0,18
Plasterboard type BA10 + polystyrene										
	N _{Ru,m}	0,18	0,18	0,2	V _{Ru,m}	0,18	0,18	0,18	0,2	0,2



Design loads (N_{Rd} , V_{Rd}) and Recommended loads (N_{Rec} , V_{Rec}) for one anchor without edge or spacing influence

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

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

$$V_{Rd} = \frac{V_{Rk}^{(2)}}{2,68}$$

$$V_{Rec} = \frac{V_{Rk}^{(2)}}{3,75}$$

(1) Issued from ETA

(2) Issued from test results

TENSILE IN kN

Base material	Anchor size	Ø5	Ø6	Ø8
Concrete (C20/25)				
	N_{Rd}	0,3	0,45	0,6
	N_{Rec}	0,21	0,32	0,42
Solid concrete blocks type B120 ($f_c = 13,5 \text{ N/mm}^2$)				
	N_{Rd}	0,15	0,20	0,25
	N_{Rec}	0,11	0,14	0,18
Clay bricks ($f_c = 55 \text{ N/mm}^2$)				
	N_{Rd}	0,10	0,40	0,60
	N_{Rec}	0,07	0,28	0,43
Hollow concrete blocks type B40 not rendered ($f_c = 6,5 \text{ N/mm}^2$)				
	N_{Rd}	0,10	0,15	0,60
	N_{Rec}	0,07	0,11	0,43
Hollow concrete blocks type B40 rendered ($f_c = 6,5 \text{ N/mm}^2$)*				
	N_{Rd}	0,35	0,63	0,84
	N_{Rec}	0,25	0,45	0,6
Hollow clay bricks type Eco-30 not rendered ($f_c = 4,5 \text{ N/mm}^2$)				
	N_{Rd}	0,21	0,28	0,35
	N_{Rec}	0,15	0,2	0,25
Hollow clay bricks type Eco-30 rendered ($f_c = 4,5 \text{ N/mm}^2$)*				
	N_{Rd}	0,35	0,49	0,63
	N_{Rec}	0,25	0,35	0,45
Engineered clay bricks not rendered ($f_c = 14,5 \text{ N/mm}^2$)*				
	N_{Rd}	0,21	0,28	0,35
	N_{Rec}	0,15	0,2	0,25
Engineered clay bricks rendered ($f_c = 14,5 \text{ N/mm}^2$)*				
	N_{Rd}	0,35	0,49	0,63
	N_{Rec}	0,25	0,35	0,45
Aerated concrete ($M_{vn} = 500 \text{ kg/m}^3$)*				
	N_{Rd}	0,06	0,08	0,12
	N_{Rec}	0,04	0,06	0,08
Plasterboard type BA13*				
	N_{Rd}	0,06	0,06	0,07
	N_{Rec}	0,04	0,04	0,05
Plasterboard type BA10 + polystyrene*				
	N_{Rd}	0,07	0,07	0,08
	N_{Rec}	0,05	0,05	0,06

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

*Base materials not included in the ETA

Spacing data

IN CONCRETE

SPIT HIT M	Minimum distance between anchors and from edges (mm)	
	$C_{cr}, N_{min.}$	$C_{cr}, V_{min.}$
5/5 ; 5/15		
6/5 ; 6/12 ; 6/25 ; 6/40	100	100
8/10 ; 8/30 ; 8/60 ; 8/80 ; 8/100		