

Vorpa VPI CE

Hammer-in nylon fixing with European Technical Assessment for non cracked concrete



products group



VPI CE



ETAG 014
use category A

Approved for

- non-cracked concrete for fixing of external thermal insulation composite system ETICS-ETAG 014-Cat.A

Also suitable for

- natural stone
- solid brick

To fix

- door frames/windows frames
- counter frames
- wood substructures - profiles
- external the thermal insulation profiles
- skirtings insulation profiles

product information

Characteristics

- integrated hammer-in nylon plug for push-through installation
- nailed-in plastic anchors for fixing of External thermal insulation composite system with rendering in concrete ETAG 014
- easy fast and economical fixing
- suitable for substructures made of wood and metal
- ideal for an economic series installation
- the hammer in plug structure prevents the plug from expanding prematurely
- the thread of the nail screw allows the screw to be removed
- when hammered in, the nail screw causes the plug to expand in two directions

Installation

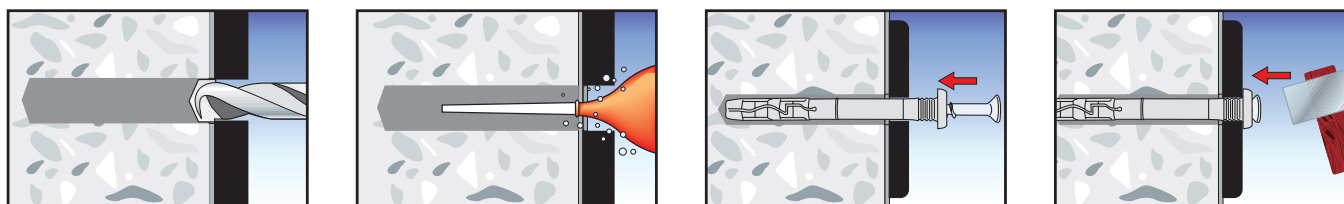
- through setting anchor

Suggestion for use

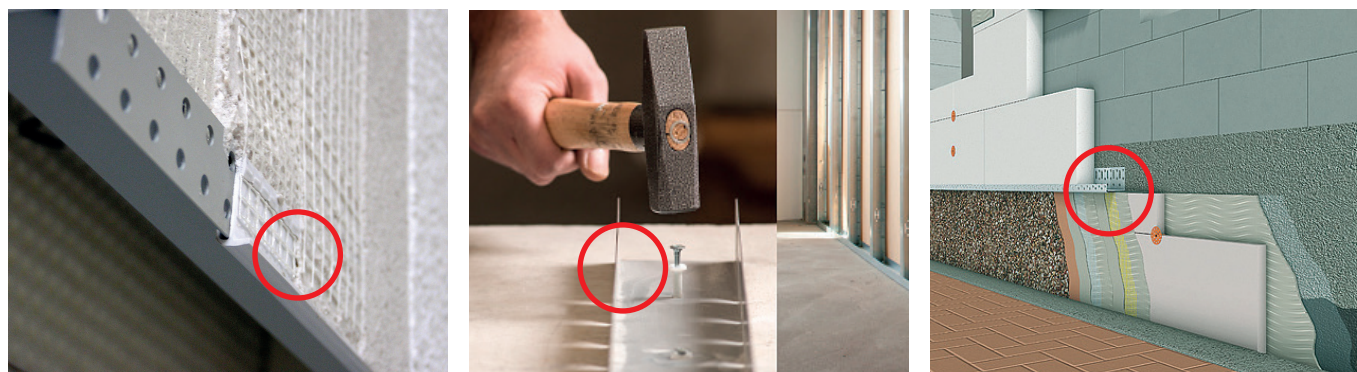
- always consider an appropriate safety factor
- check load bearing capacity values
- respect the installation data
- clean the hole before the installation

installation sequence

Clean the hole before the installation



Examples of applications



universal and frame fixings

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concrete



natural stone



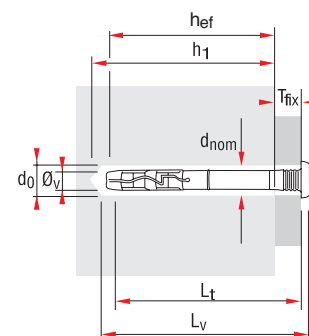
solid brick

product code and technical data



VPI CE

Code	Description	$d_{nom} \times L_t$ mm	$\emptyset_v \times L_v$ mm	h_1 mm	T_{fix} mm	d_0 mm	h_{ef} mm
4154	VPI CE 6/40	6 x 40	4 x 45	55	10	6	30
4155	VPI CE 6/50	6 x 50	4 x 65	65	20	6	30
4156	VPI CE 6/60	6 x 60	4 x 85	75	30	6	30
4157	VPI CE 6/80	6 x 80	5 x 50	95	50	6	30
4158	VPI CE 8/60	8 x 60	5 x 65	75	20	8	40
4159	VPI CE 8/80	8 x 80	5 x 85	95	40	8	40
4160	VPI CE 8/100	8 x 100	5 x 105	115	60	8	40
4161	VPI CE 8/120	8 x 120	5 x 125	135	80	8	40
4162	VPI CE 8/140	8 x 140	5 x 145	155	100	8	40



L_t = Plug length
 h_1 = Min. hole depth
 d_0 = Hole diameter
 T_{fix} = Fixture thickness
 $\emptyset_v$ = Screw diameter
 L_v = Screw length
 d_{nom} = Plug diameter
 h_{ef} = Embedment depth

Examples of applications



ATTENTION: An appropriate safety factor ≥ 3 should be applied on these values on solid brick

VPI CE

Non cracked concrete Use category A

1 kN $\approx$ 100 kg

Installation data

Minimum spacing	S_{min}	mm	100
Minimum edge distance	C_{min}	mm	100
Minimum thickness of the member	h_{min}	mm	100

Characteristic values non-cracked concrete

			VPI CE 6	VPI CE 8
Pull out failure				
C12/15	$N_{rk,P}$	KN	0,50	0,40
C20/25-C50/60	$N_{rk,P}$	KN	0,75	0,60

Values where the reduction factor γ is included (Design loads)

			VPI CE 6	VPI CE 8
Pull out failure				
C12/15	$N_{rk,P}$	KN	0,25	0,20
C20/25-C50/60	$N_{rk,P}$	KN	0,38	0,30

Recommended loads

			VPI CE 6	VPI CE 8
Pull out failure				
C12/15	N	KN	0,16	0,13
C20/25-C50/60	N	KN	0,24	0,20

application on solid brick: not covered by ETA

Characteristic values solid brick

			VPI CE 6	VPI CE 8
Pull out failure				
**solid brick		KN	0,30	0,20