

Vorpa VPO CE

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



concrete



natural
stone



solid brick

products group



VPO CE
countersunk
flanged collar

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



ETAG 014
use category A

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

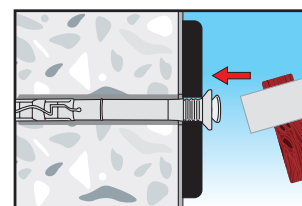
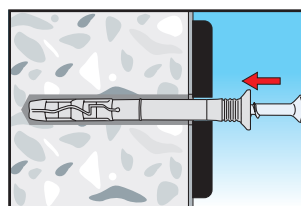
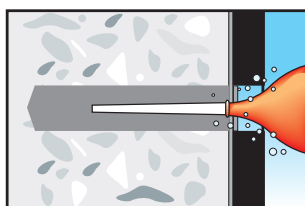
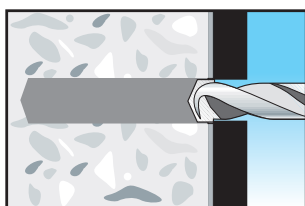
- through setting anchor

Suggestion for use

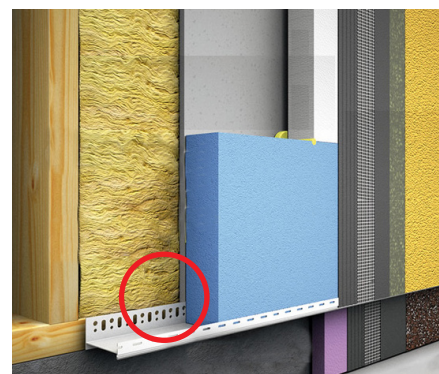
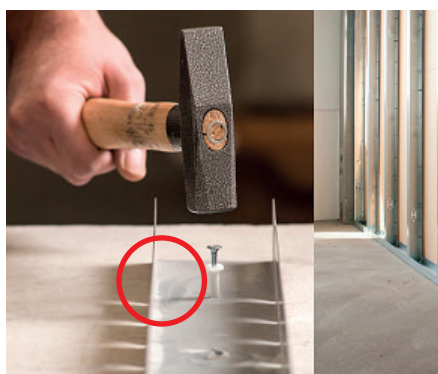
- always consider an appropriate safety factor
- check load bearing capacity values
- respect the installation data
- clean the hole before the installation

installation sequence

Clean the hole before the installation



Examples of applications





concrete

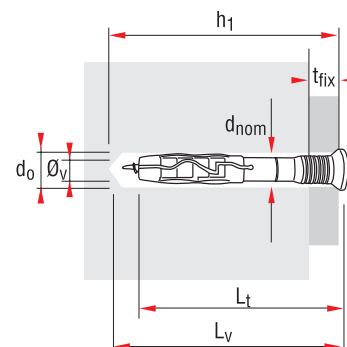
natural
stone

solid brick

product code and technical data


VPO CE
 countersunk flanged collar

Code	Description	$d_{nom} \times L_t$ mm	$\emptyset_v \times L_v$ mm	h_1 mm	T_{fix} mm	d_o mm	h_{ef} mm
4190	VPO CE 6/40	6 x 40	4 x 45	55	10	6	30
4191	VPO CE 6/50	6 x 50	4 x 65	65	20	6	30
4192	VPO CE 6/60	6 x 60	4 x 85	75	30	6	30
4193	VPO CE 6/80	6 x 80	5 x 50	95	50	6	30
4194	VPO CE 8/60	8 x 60	5 x 65	75	20	8	40
4195	VPO CE 8/80	8 x 80	5 x 85	95	40	8	40
4196	VPO CE 8/100	8 x 100	5 x 105	115	60	8	40
4197	VPO CE 8/120	8 x 120	5 x 125	135	80	8	40
4198	VPO CE 8/140	8 x 140	5 x 145	155	100	8	40



L_t = Plug length
 h_1 = Min. hole depth
 d_o = 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

VPO 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

			VPO CE 6	VPO 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)

			VPO CE 6	VPO 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

			VPO CE 6	VPO 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

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