# fixings for insulation

# Vorpa ISO CE 8

Nylon fixing for insulation panels with **European Technical Assesment** 

products group























**PANELS** 

polystyrene panels

**BASE MATERIALS** 

aggregate block



ISO CE 8

## Approved for

- concrete
- · lightweight concrete
- · lightweight aggregate blocks
- · solid clay bricks
- · solid brick
- · hollow brick

#### To fix

- polystyrene panels
- · extruded polystyrene
- · mineral wool lamella/mineral wool







Ideal for applications on masonry coated by solid and soft heat insulating panels and insulation materials.

# product information

### **Characteristics**

- polyamide fixing with white galvanized steel pin, head coated with plastic suitable for all types of insulation materials. Use categories A-B-C-D-E
- reduced thermal transfer due to plastic endings of metal pin
- easy and quick installation, the expansion is carried out by hammering the pin inside the nylon fixing
- · reduced embedment depth enables reduced drilling times
- special washer Ø140mm permits the fixing on lightweight insulation materials
- · pin's head covered by fiberglass reinforced polyamide
- the steel pin is suitable for all types of insulation materials and particularly for rigid insulation materials

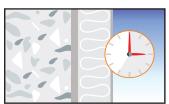
### Installation

• to be mounted aligned with the insulation panels

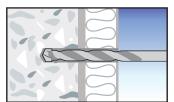
## Suggestion for use

- · always consider an appropriate safety factor
- · check load bearing capacity values
- · respect the installation data
- · when calculating the usable length it is suggested to take into consideration eventual extra thicknesses such as glues, sealants, old plasters

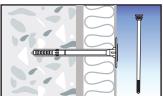
# installation sequence



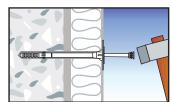
Wait till the sealant between the insulation panel and the base material is completely dry



Drill the base material with an appropriate drill bit

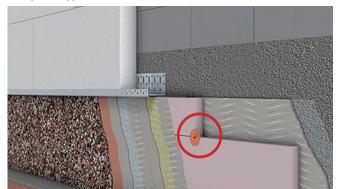


Insert the nylon fixing without pin until the washer rests again the insulation



Fix the pin by hammering gently until full expansion, i.e. when the head is leveled with washer surface

### **Examples of applications**



Revision 07-2020



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Code

5747

5748 5749

5750

5751

5752

Nylon fixing for insulation panels with **European Technical Assesment** 



Lt

mm

95

115

135

155

175

195

8

8















 $T_{fix}+T_{tol}+h_{ef}$ 

Tfix+Ttol+hef



60

60

4,8

4,8

hmin = 100 mm

Cmin = 100 mmSmin = 100 mm





hollow brick

180

200

product code and technical data

Description

ISO CE 8 8/95

ISO CE 8 8/115

ISO CE 8 8/135

ISO CE 8 8/155

ISO CE 8 8/175

ISO CE 8 8/195

**PANELS** 

 $\geq 35^{1)}/\geq 75^{2)}$ 

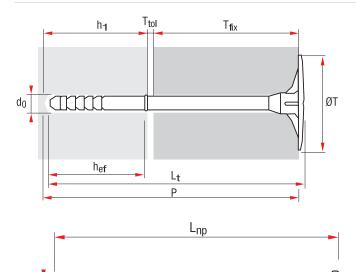
 $\geq 35^{1)}/\geq 75^{2)}$ 

**BASE MATERIALS** 

d <sub>O</sub> mm	h <sub>1</sub> mm	h <sub>ef</sub> mm	T <sub>fix</sub> mm	P mm	ØT mm	d <sub>p</sub> mm	L <sub>np</sub> mm
8	$\geq 35^{1)}/\geq 75^{2)}$	$\geq 25^{1)}/\geq 65^{2)}$	Lt - hef - Ttol	$T_{fix}+T_{tol}+h_{ef}$	60	4,8	100
8	$\geq 35^{1)}/\geq 75^{2)}$	$\geq 25^{1)}/\geq 65^{2)}$	Lt - hef - Ttol	$T_{fix}+T_{tol}+h_{ef}$	60	4,8	120
8	$\geq 35^{1)}/\geq 75^{2)}$	$\geq 25^{1)}/\geq 65^{2)}$	Lt - hef - Ttol	$T_{fix}+T_{tol}+h_{ef}$	60	4,8	140
8	$\geq 35^{1)}/\geq 75^{2)}$	≥25 <sup>1)</sup> /≥65 <sup>2)</sup>	Lt - hef - Ttol	Tfix+Ttol+hef	60	4,8	160

Lt - hef - Ttol

Lt - hef - Ttol



= Use categories A,B,C,D 2) = Use category E

= Anchor length

 $\geq 25^{1)}/\geq 65^{2)}$ 

 $\geq 25^{1)}/\geq 65^{2)}$ 

 $h_1$ = Min. hole depth = Hole diameter  $d_0$ = Embedment depth

= Fixture thickness = Total depth of holes

 $d_p$ = Pin diameter = Pin length

= Pin's knurling length

= Thickness of equalizing and/ or non-load-bearing layer

 $h_{min}$  = Min. base material thickness  $S_{min} = Min.$  anchor spacing

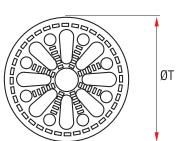
 $C_{min} = Min.$  edge distance



**Accessories** 

Code	Description	ØT mm
55762	ISO DISCO CE 140	140

Characteristic loading values according to ETA ATTENTION: An appropriate safety factor ≥ 2 should be applied on these values





#### ICO CE O

15U GE 8					
Substrate materials	Class	Density Kg/dm <sup>3</sup>	daN		
Pull out values in daN			1 daN≃1 kg		
C12/15 concrete	A	≥ 2.25	50		
C16/20 - C50/60 concrete	Α	≥ <b>2.30</b>	75		
Clay bricks / calcium silicate bricks	В	≥ 2.00	75		
Calcium Silicate hollow blocks	C	≥ 1.60	75		
Vertically perforated clay bricks	C	≥ 1.20	60		
Porotherm 25	C	≥ 0.80	40		
Lightweight aggregate concrete blocks LAC	D	≥ 0.88	60		
Autoclaved aerated concrete elements AAC2	E	≥ 0.35	75		
Autoclaved aerated concrete elements AAC7	F	> 0.65	90		

**ETAG 014 light fixings** 

Use Category	Building materials
A	Normal weight concrete
В	Solid masonry - Silicate blocks
C	Hollow or perforated masonry
D	Lightweight aerated concrete
E	Autoclave aerated concrete