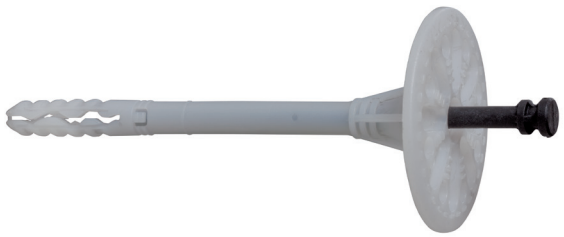
Vorpa **ISO CE 10 MC**

Nylon fixing for insulation panels with European Technical Assesment

polystyrene panels | extruded polystyrene | concrete | lightweight concrete | lightweight aggregate block | solid clay brick | solid brick

PANELS | BASE MATERIALS

products group



ISO CE 10 MC

ETA 014
for use categories A-B-C-D-E

CALCULATION SOFTWARE

Approved for
- concrete
- lightweight concrete
- lightweight aggregate blocks
- solid clay bricks
- solid brick

To fix
- polystyrene panels
- extruded polystyrene
- heat insulating and soundproofing panels

Ideal for applications on compact masonry coated by heat insulating panels and rigid insulation materials

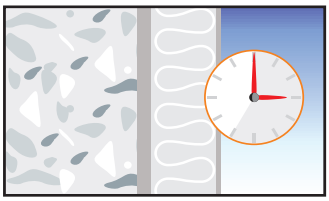
product information

Characteristics
- polyamide fixing with pin made of fiberglass reinforced polyamide suitable for the fixing of rigid insulation panels on compact materials. Use categories A-B-C-D-E
- reduced thermal transfer
- easy and quick installation, the expansion is carried out by hammering the pin inside the nylon fixing
- reduced embedment depth enables reduced drilling times
- pin made of fiberglass reinforced polyamide

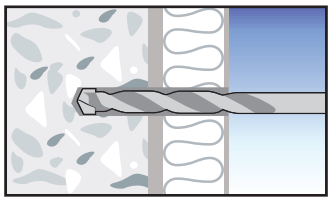
Installation
- to be mounted aligned with the insulation panels

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

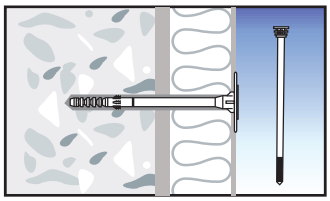
installation sequence



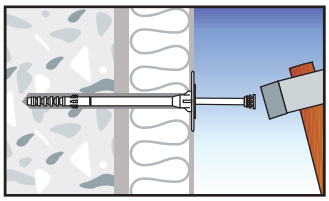
Wait till the sealant between the insulation panel and the base material is completely dry



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

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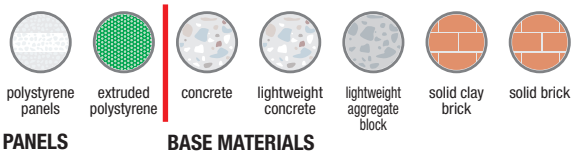
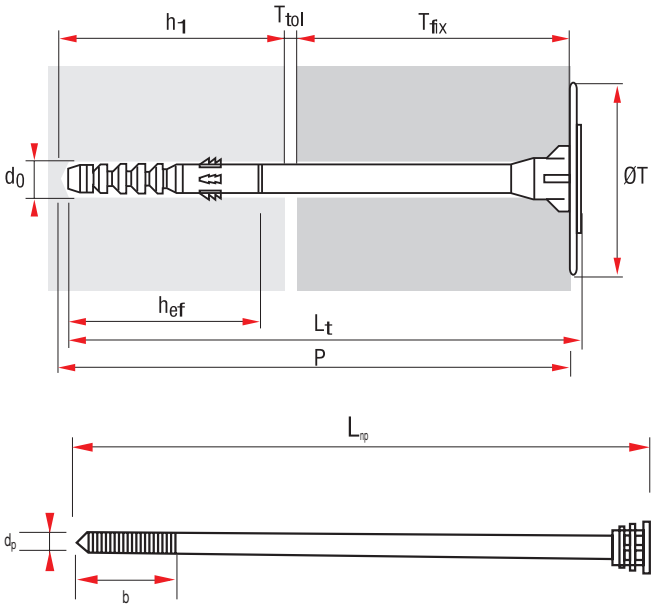
Nylon fixing for insulation panels with European Technical Assesment

product code and technical data



Code	Description	L_t mm	d_o mm	h_1 mm	h_{ef} mm	T_{fix} mm	P mm	ØT mm	d_p mm	L_{np} mm	b mm
5765	ISO CE MC 10 10/70	70	10	≥40[1]/≥60[2]	≥30[1]/≥50[2]	L_t-T_{tol}-h_{ef}	T_{fix}+T_{tol}+h_1	60	5,5	75	44
5766	ISO CE MC 10 10/90	90	10	≥40[1]/≥60[2]	≥30[1]/≥50[2]	L_t-T_{tol}-h_{ef}	T_{fix}+T_{tol}+h_1	60	5,5	95	44
5767	ISO CE MC 10 10/110	110	10	≥40[1]/≥60[2]	≥30[1]/≥50[2]	L_t-T_{tol}-h_{ef}	T_{fix}+T_{tol}+h_1	60	5,5	115	44
5768	ISO CE MC 10 10/120	120	10	≥40[1]/≥60[2]	≥30[1]/≥50[2]	L_t-T_{tol}-h_{ef}	T_{fix}+T_{tol}+h_1	60	5,5	125	44
5769	ISO CE MC 10 10/140	140	10	≥40[1]/≥60[2]	≥30[1]/≥50[2]	L_t-T_{tol}-h_{ef}	T_{fix}+T_{tol}+h_1	60	5,5	145	44
5770	ISO CE MC 10 10/160	160	10	≥40[1]/≥60[2]	≥30[1]/≥50[2]	L_t-T_{tol}-h_{ef}	T_{fix}+T_{tol}+h_1	60	5,5	165	44
5771	ISO CE MC 10 10/180	180	10	≥40[1]/≥60[2]	≥30[1]/≥50[2]	L_t-T_{tol}-h_{ef}	T_{fix}+T_{tol}+h_1	60	5,5	185	44
5772	ISO CE MC 10 10/200	200	10	≥40[1]/≥60[2]	≥30[1]/≥50[2]	L_t-T_{tol}-h_{ef}	T_{fix}+T_{tol}+h_1	60	5,5	205	44
5773	ISO CE MC 10 10/220	220	10	≥40[1]/≥60[2]	≥30[1]/≥50[2]	L_t-T_{tol}-h_{ef}	T_{fix}+T_{tol}+h_1	60	5,5	225	44
5774	ISO CE MC 10 10/260	260	10	≥40[1]/≥60[2]	≥30[1]/≥50[2]	L_t-T_{tol}-h_{ef}	T_{fix}+T_{tol}+h_1	60	5,5	265	44



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

L_t = Anchor length
h_1 = Min. hole depth
d_o = Hole diameter
h_{ef} = Embedment depth
T_{fix} = Fixture thickness
P = Total depth of holes
d_p = Pin diameter
L_{np} = Pin length
b = Pin's knurling length
T_{tol} = 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

hmin = 100 mm
Cmin = 100 mm
Smin = 100 mm

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

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Substrate materials	Class	Density Kg/dm³	daN
Pull out values in daN			**1 daN≈1 kg**
C12/15 concrete	A	≥ 2.25	50
C20/25 - C50/60 concrete	A	≥ 2.30	75
Clay bricks	B	≥ 2.00	75
Calcium silicate solid brick	B	≥ 2.00	60
Calcium silicate hollow blocks	C	≥ 1.60	60
Vertically perforate clay bricks	C	≥ 1.20	60
Porotherm 25	C	≥ 0.80	40
Lightweight aggregate concrete solid blocks	D	≥ 0.88	60
Autoclaved aerated concrete blocks AAC2	E	≥ 0.35	50
Autoclaved aerated concrete blocks AAC7	E	≥ 0.65	60

ETAG 014 light fixings

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