fixings for insulation

Vorpa ISO CE 10 MF

Nylon fixing for insulation panels with European Technical Assesment





Characteristics

- polyamide fixing with pin made of fiberglass reinforced polyamide suitable for the fixing of rigid insulation panels on perforated and compact materials. Use categories B-C-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
- · particularly indicated to fix 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





nsulation

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polystyrene extruded polystyrene silica brick hollow brid

panels polysi

brick hollow brick lightweight s 15 aggregate block

BASE MATERIALS

eight solid clay solid brick

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		200 180		

Code	Description	L _t mm	d _o mm	h ₁ mm	h _{ef} mm	T _{fix} mm	P mm	ØT mm	dp mm	L _{np} mm	b mm	S mm
5755	ISO CE MF 10 10/140	140	10	90	80	L _t -T _{tol} -h _{ef}	Tfix+Ttol+h1	60	5,3	140	85	10
5756	ISO CE MF 10 10/160	160	10	90	80	L _t -T _{tol} -h _{ef}	Tfix+Ttol+h1	60	5,3	160	85	10
5757	ISO CE MF 10 10/180	180	10	90	80	L _t -T _{tol} -h _{ef}	Tfix+Ttol+h1	60	5,3	180	85	10
5758	ISO CE MF 10 10/200	200	10	90	80	L _t -T _{tol} -h _{ef}	Tfix+Ttol+h1	60	5,3	200	85	10
5759	ISO CE MF 10 10/220	220	10	90	80	L _t -T _{tol} -h _{ef}	Tfix+Ttol+h1	60	5,3	220	85	10
5760	ISO CE MF 10 10/260	260	10	90	80	L _t -T _{tol} -h _{ef}	Tfix+Ttol+h1	60	5,3	260	85	10
5761	ISO CE MF 10 10/300	300	10	90	80	$L_t - T_{tol} - h_{ef}$	Tfix+Ttol+h1	60	5,3	300	85	10

1)

2)



Lt	= Anchor length
h ₁	= Min. hole depth
do	= Hole diameter
h _{ef}	= Embedment depth
T _{fix}	= Fixture thickness
Ρ	= Total depth of holes
dp	= Pin diameter
Lnp	= Pin length
b	= Pin's knurling length
Ttol	= Thickness of equalizing and/
	or non-load-bearing layer
h _{min}	$\mathbf{h} = Min.$ base material thickness
Smir	= Min. anchor spacing
C _{mir}	= Min. edge distance

= Use categories A,B,C,D

= Use category E

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

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

ISO CE 10 MF			
Substrate materials	Class	Density Kg/dm ³	daN
Pull out values in daN			1 daN≃1 kg
Solid clay brick	В	≥ 2.00	75
Perforated brick	C	≥ 1.20	80
Calcium silicated solid bricks	С	≥ 1.60	50
Porotherm 25	C	≥ 0.80	50
Autoclaved aerated concrete AAC2	E	≥ 0.35	30
Autoclaved aerated concrete AAC7	E	≥ 0.65	85

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