

**Hammer driven fastener with plastic pin and extended expansion zone**

**LFN-10**

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Plastic fastener for fastening of polystyrene EPS foam on cat. B, C, E substrates according to EAD 330196-01-0604, in ETICS systems.

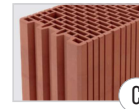


ETA-17/0450

SUBSTRATES (EAD 330196-01-0604 BCE)



**Solid clay bricks MZ, Calcium silicate solid brick KS**



**Hollow bricks**



**Autoclaved aerated concrete AAC**

<b>FASTENER MATERIAL</b>	Polyethylene (PE)
<b>PIN MATERIAL</b>	Glass-fibre reinforced polyamide (PA)
<b>INSTALLATION METHOD</b>	· Surface mount · Immersed mount
<b>APPLICATION</b>	Universal fastener for installing of polystyrene EPS
<b>TYPE OF INSULATION MATERIAL</b>	Styrofoam EPS



**FIBREGLASS REINFORCED PIN**

Ensures good strength during installation. Nail's head design makes installation easier and seals the sleeve – pin connection.



**INNOVATIVE DESIGN OF THE FASTENER**

Greater stiffness of the collar means better holding of the thermal insulation material.

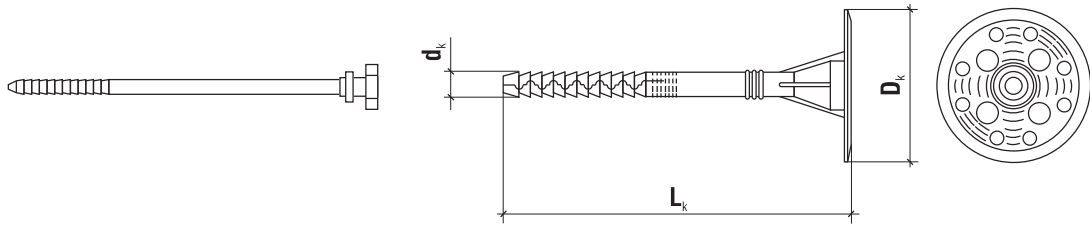


**LONG EXPANSION ZONE**

Long expansion zone ensures steady and reliable distribution of stresses in the substrate.



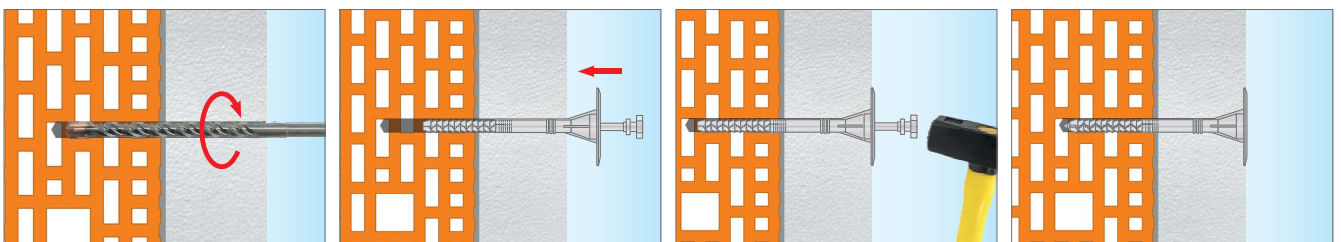
Plastic pin  
**LFN-10**  
Length range: 140 - 300 mm  
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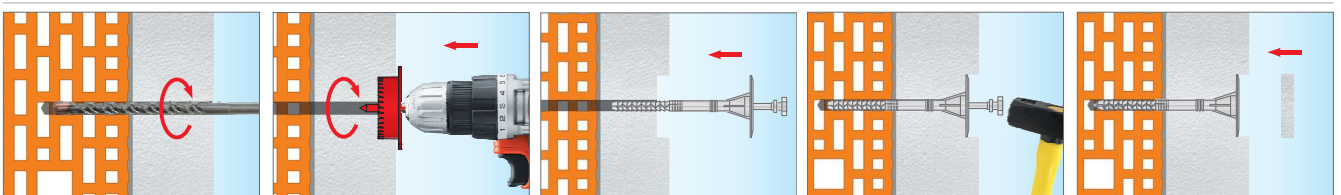
	Product code	Dimensions	Insulation material thickness $t_{ix}$ [mm]				Pack unit [pcs.]
			New buildings		Old buildings		
			$t_{tot}$ adhesive layer of 10 mm		$t_{tot}$ adhesive layer of 10 mm + 20 mm of old plaster		
			without cutter	with cutter	without cutter	with cutter	
<b>LFN-10</b>							
<b>ø10</b>	LFN10140(200)	10x140	60	80	40	60	200
	LFN10160 (200)	10x160	80	100	60	80	200
	LFN10180 (200)	10x180	100	120	80	100	200
	LFN10200 (200)	10x200	120	140	100	120	200
	LFN10220 (100)	10x220	140	160	120	140	100
	LFN10260 (100)	10x260	180	200	160	180	100
	LFN10300 (100)	10x300	220	240	200	220	100

Product marking - LFN10140(200)			
LFN	10	140	(200)
Fastener type	Diameter	Length	Number of pieces in a box

**INSTALLATION INSTRUCTIONS - surface mount**



**INSTALLATION INSTRUCTIONS - immersed mount with a polystyrene EPS disc (with plastic cutter)**



AVAILABLE ACCESSORIES

SEE PAGE 31

Hammer driven fastener with plastic pin and extended expansion zone



# LFN-10 - TECHNICAL DATA

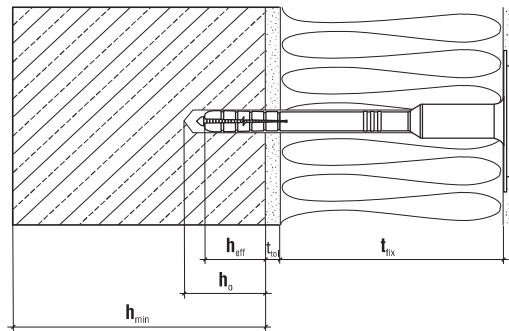
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ETA-17/0450

### TECHNICAL DATA

Parameter	Unit	Value	
Fastener diameter	$d_k$ [mm]	10	
Collar diameter	$D_k$ [mm]	60	
Effective anchorage depth	$h_{eff}$ [mm]	70	
Hole depth	$h_o$ [mm]	75	
Point thermal transmittance	$\chi$ [W/K]	surface mount	Immerged mount
		0,000	0,000
Collar stiffness	$S$ [kN/mm]	0,30	
Substrate category	-	<b>BCE</b>	
Fastener material	-	PE	
Pin material	-	PA + GF	
European Technical Assessment	-	<b>ETA-17/0450</b>	



### LOAD RESISTANCE

EAD 330196- 01-0604 use cat.	Substrate	Density [kg/dm <sup>3</sup> ]	Characteristic pull-out resistance [kN]
B	Solid clay bricks	≥2,00	0,75
C	Calcium silicate hollow blocks	≥1,60	0,50
C	Vertically perforated clay bricks	≥1,20	0,80
C	Porotherm 25	≥0,80	0,50
E	Autoclaved aerated concrete AAC 2	≥0,35	0,30
E	Autoclaved aerated concrete AAC 7	≥0,65	0,85

E - Autoclaved aerated concrete

Partial safety factor for fastener resistance  $Y_m = 2,0$  (valid in absence of national regulations)

### INSTALLATION DATA

Fastener type	LFN-10
Min. substrate thickness $h_{min}$ [mm]	100
Minimum fastener spacing $L_{os}$ [mm]	100
Minimum edge distance $C_{min}$ [mm]	100

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# LFN-10 - INSTALLATION ACCESSORIES

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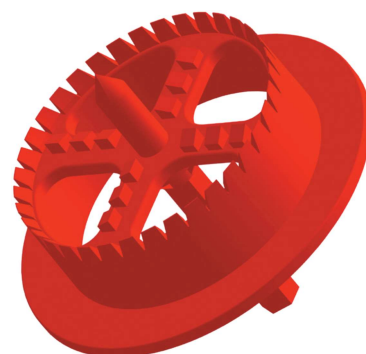
## Plastic cutter for polystyrene EPS

**WK-FT**

diameter Ø66.7 mm

### Specifications:

- Plastic cutter for cutting holes in polystyrene EPS insulation material for insertion of polystyrene EPS disc.
- Controlled cutting depth, thrust collar with a diameter of 90 mm.



## Polystyrene disc (white, graphite)

**KS, KSG**

dimensions Ø67 x 17 mm

### Specifications:

- Polystyrene disc (white, graphite) for covering up work holes in polystyrene - installation immersed mount.

