

PRODUCT DATA SHEET - LFN-10

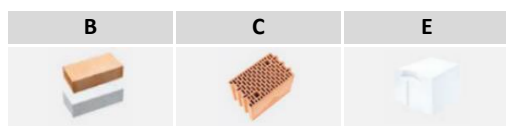
Section 1. PRODUCT DESCRIPTION

HAMMER DRIVEN FASTENER WITH PLASTIC PIN AND EXTENDED EXPANSION ZONE - LFN-10

Hammer driven fastener with plastic pin and extended expansion zone LFN-10 is made from polyethylene, and the pin from glass fibre-reinforced polyamide which improves its strength. Fastener LFN-10 should be used to transfer loads of wind suction forces and applied as an additional mechanical fixing for the whole system, recommended for:

- Polystyrene EPS
- XPS polystyrene

Types of substrates on which the LFN-10 connector can be installed according to EAD 330196-01-0604:



Solid ceramic brick, silicate

Ceramic block

Aerated concrete

The connectors have the European Technical Assessment: ETA-17/0450



Glass-fibre reinforced pin



Innovative sleeve design



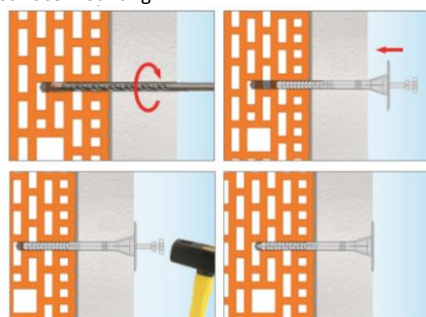
long expansion zone



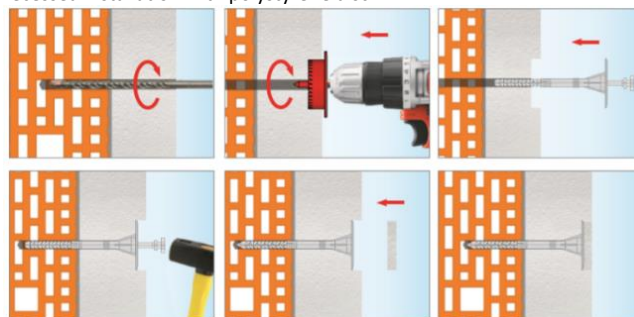
Section 2. INSTALLATION METHOD

1. Before starting the installation, it is necessary to recognise the support and select the fasteners intended for it
2. The appropriate connector length must be chosen so that the expansion zone is in the wall construction material
3. The minimum length of the connector is: $L_d = t_{fix} + t_{tol} + h_{eff}$, where: t_{fix} - thickness of the applied thermal insulation, t_{tol} - thickness of the levelling layers (adhesive mortar + existing plaster), h_{eff} - anchorage depth of the connector in the substrate (stated in the data sheet and technical approval)
4. Before installation, the substrate must be prepared according to the recommendations of the ETICS insulation system manufacturer
5. Thermal insulation panels must be adequately fixed with adhesive mortar
6. The diameter of the holes drilled must correspond to the diameter of the fasteners used
7. Holes in substrates made of solid materials should be at least 10 mm deeper than the anchoring depth of the connector
8. Holes in solid materials must be cleaned of drill residue using a back-and-forth motion of the drill at reduced speed, repeating the operation four times.
9. Holes in substrates with voids must be drilled without the use of a hammer, as this would cause the inner walls of the substrate to crack, reducing the tear resistance of the connectors.
10. The connectors must be fixed so that the installation location coincides with the position of the adhesive mortar on the thermal insulation board.
11. The connector body must be positioned so that the connector pressure plate is flush with the thermal insulation material.
12. Then insert the connector pin to fix it permanently
13. Do not hammer connectors with an embedded pin, as this may cause them to break.
14. polystyrene cutter **WK-FT**, so-called flush-mounted installation
15. After installing the connector, mask the mounting position of the connector with a **KS/KSG** polystyrene disc, the so-called recessed installation

surface mounting



recessed installation with polystyrene disc



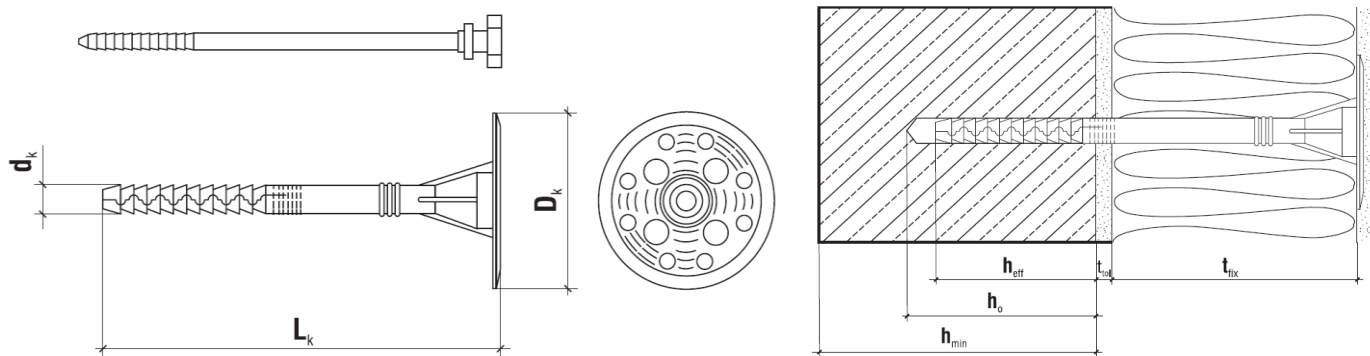
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Section 3. SPECIFICATIONS

TECHNICAL PARAMETERS		
Parameter	Unit	Value
Connector diameter	d_k [mm]	10
Plate diameter	D_k [mm]	60
Anchorage depth	h_{eff} [mm]	70
Depth of hole	h_0 [mm]	75
Point thermal conductivity	χ [W/K]	0.000
Plate rigidity	S [kN/mm].	0.3
Utility categories	[-]	B C E
Connector material	[-]	PE
Stem material	[-]	PA + GF
European Technical Assessment	[-]	ETA-17/0450

STRENGTH PARAMETERS			
Substrate category	Type of substrate	Density [kg/dm ³]	Characteristic load capacity [kN]
B	Solid ceramic brick	$\geq 2,00$	0,75
C	Silicate channel blocks	$\geq 1,60$	0,50
C	Ceramic hollow brick	$\geq 1,20$	0,80
C	Porotherm 25	$\geq 0,80$	0,50
E	AAC2 aerated concrete	$\geq 0,35$	0,30
E	AAC7 aerated concrete	$\geq 0,65$	0,85

Partial safety factor $\gamma_M = 2$ in the absence of regulation



SELECTION TABLE						
Product code	Connector diameter and length (d _k x L _k)	Thickness of thermal insulation material t _{fix} [mm]				Quantity in pack [pcs.]
		New constructions (t _{coll} includes 10 mm of glue)		Old buildings (t _{tol} includes 10 mm of glue + 20 mm of old plaster)		
		Without cutter	With cutter	Without cutter	With cutter	
LFN-10140	10x140	60	80	40	60	200
LFN-10160	10x160	80	100	60	80	200
LFN-10180	10x180	100	120	80	100	200
LFN-10200	10x200	120	140	100	120	200
LFN-10220	10x220	140	160	120	140	100
LFN-10260	10x260	180	200	160	180	100
LFN-10300	10x300	220	240	200	220	100

Section 4. NOTES

1. All previous versions of this Data Sheet are no longer valid
2. The data in this Product Data Sheet are in accordance with the current state of knowledge and are given in good faith. If the recommendations on how to use and install the product are not followed, KLIMAS Sp. z o.o. is not responsible for the correctness and quality of the connection.