

PRODUCT DATA SHEET - LTX-10

Section 1. PRODUCT DESCRIPTION

PLASTIC PIN ACTUATED FASTENER WITH SHORT EXPANSION ZONE - LTX-10

Hammer driven fastener with plastic pin and short expansion zone LTX-10 is made from polyethylene, and the pin from glass fibre-reinforced polyamide which improves its strength. Fastener LTX-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 LTX-10 fastener can be installed according to EAD 330196-01-0604:

A	B	C	D	E
				
Concrete	Solid ceramic brick, silicate	Ceramic block	Lightweight aggregate elements	Aerated concrete



**NEW
IMPROVED
DESIGN**
-30 and 50
mm
anchorage



glass-fibre
reinforced
pin



special
connection
flange



innovative
sleeve
design

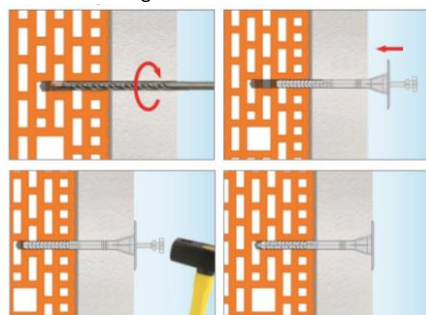


The fasteners have the European Technical Assessment: ETA-16/0509

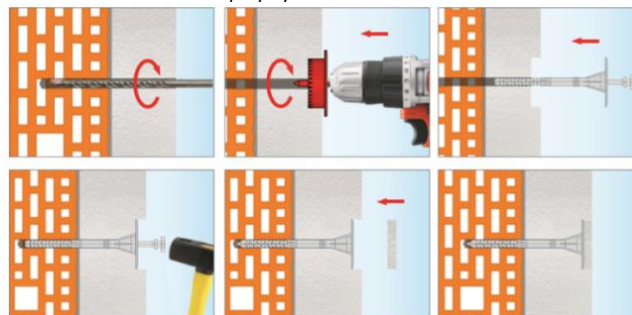
Section 2. INSTALLATION METHOD

1. Before starting the installation, it is necessary to recognise the support and select the fasteners intended for it
2. The appropriate fastener length must be chosen so that the expansion zone is in the wall construction material
3. The minimum length of the fastener is: $L_d = t_{fix} + t_{tol} + h_{eff}$, where: t_{fix} - thickness of attached thermal insulation, t_{tol} - thickness of levelling layers (adhesive mortar + existing plaster), h_{eff} - anchorage depth of the fastener 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 fastener
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 and aerated concrete 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 fasteners.
10. The fasteners must be fixed so that the installation location coincides with the position of the adhesive mortar on the thermal insulation board.
11. The fastener body must be positioned so that the fastener pressure plate is flush with the heat-insulating material.
12. Then insert the fastener pin to fix it permanently
13. Do not hammer fasteners 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 fastener, cover the mounting point with a **KS/KSG** polystyrene disc, the so-called recessed installation

surface mounting



recessed installation with polystyrene disc



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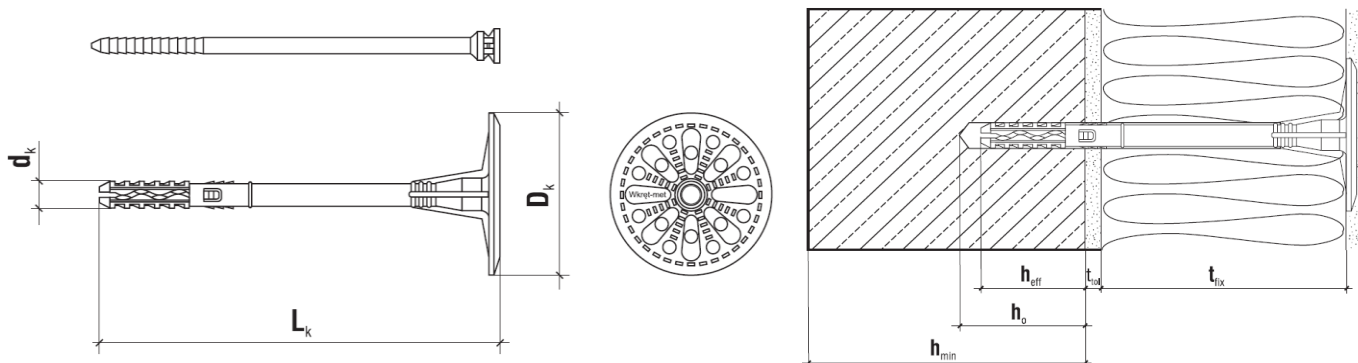
Section 3. SPECIFICATIONS

TECHNICAL PARAMETERS			
Parameter	Unit	Value	
Fastener diameter	d_k [mm]	10	
Plate diameter	D_k [mm]	60	
Anchorage depth	h_{eff} [mm]	30/50*	
Depth of hole	h_o [mm]	40/60*	
Point thermal conductivity	χ [W/K]	Surface mounting	Built-in installation
		0.001	0.000
Plate rigidity	S [kN/mm]	0,50	
Utility categories	[-]	ABCDE	
Fastener material	[-]	PE	
Stem material	[-]	PA+GF	
European Technical Assessment	[-]	ETA-16/0509	

*for category E substrates (aerated concrete)

STRENGTH PARAMETERS			
Substrate category	Type of substrate	Density [kg/dm³]	Characteristic load capacity [kN]
A	Concrete C12/15	$\geq 2,25$	0,50
A	Concrete C20/25-C50/60	$\geq 2,30$	0,75
B	Solid ceramic brick	$\geq 2,00$	0,75
B	Solid silicate brick	$\geq 2,00$	0,60
C	Silicate channel blocks	$\geq 1,60$	0,60
C	Ceramic hollow brick	$\geq 1,20$	0,60
C	Porotherm 25	$\geq 0,80$	0,40
D	Lightweight concrete blocks	$\geq 0,88$	0,60
E	AAC2 aerated concrete	$\geq 0,35$	0,50
E	AAC7 aerated concrete	$\geq 0,65$	0,60

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



SELECTION TABLE						
Product code	Fastener diameter and length (d _k x L _k)	Thickness of thermal insulation material t _{fix} [mm]				Quantity in pack [pcs.]
		New buildings (t _{tol} adhesive layer of 10mm included)		Old buildings (t _{tol} adhesive layer of 10mm + 20mm of old plaster included)		
		Without cutter	With cutter	Without cutter	With cutter	
LTX-10070	10x70	30/10*	50/30*	10/-*	30/10*	200
LTX-10090	10x90	50/30*	70/50*	30/10*	50/30*	200
LTX-10110	10x110	70/50*	90/70*	50/30*	70/50*	200
LTX-10120	10x120	80/60*	100/80*	60/40*	80/60*	200
LTX-10140	10x140	100/80*	120/100*	80/60*	100/80*	200
LTX-10160	10x160	120/100*	140/120*	100/80*	120/100*	200
LTX-10180	10x180	140/120*	160/140*	120/100*	140/120*	200
LTX-10200	10x200	160/140*	180/160*	140/120*	160/140*	200
LTX-10220	10x220	180/160*	200/180*	160/140*	180/160*	100
LTX-10260	10x260	220/200*	240/220*	200/180*	220/200*	100

*for category E substrates (aerated concrete)

Section 4. NOTES

- All previous versions of this Data Sheet are no longer valid
- 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 Wkręt-met Sp. z o.o. is not responsible for the correctness and quality of the connection.