

PRODUCT DATA SHEET - LMX-10






Section 1. PRODUCT DESCRIPTION

GUIDED CONNECTOR WITH STEEL SHANK AND SHORT EXPANSION JOINT - LMX-10

Hammer driven fastener with metal pin and short expansion zone LMX-10 is made from polyethylene, and the pin from galvanized steel, with the head sealed in polyamide which reduce spot thermal conductivity of the fastener. Fastener LMX-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
- mineral wool (with TDX-90 and TDX-140 pressure plate)
- lamellar wool (with TDX-90 and TDX-140 pressure plate)

Types of substrates on which the LMX-10 connector 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

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



NEW IMPROVED DESIGN
-30 and 50 mm anchorage

The head of the metal pin is covered with plastic

innovative sleeve design

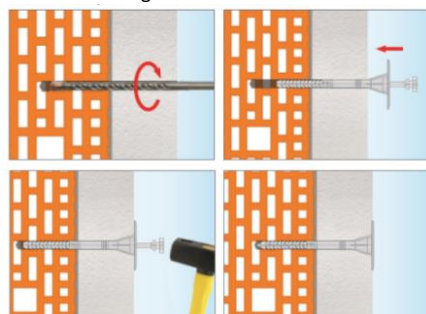
short expansion zone



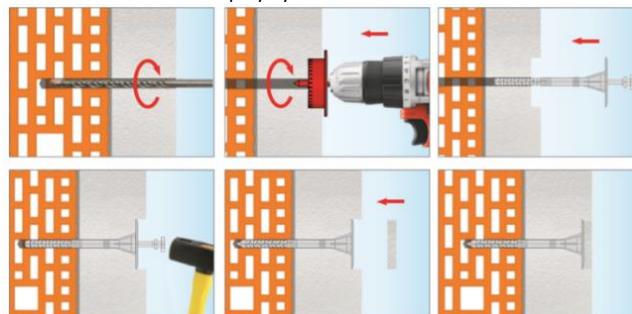
Section 2. INSTALLATION METHOD

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 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 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 housing must be positioned so that the connector plate is flush with the heat-insulating material
12. Then insert the connector pin to fix it permanently
13. The connectors can be installed in milled holes with the **WK-FT** cutter, the so-called flush-mounted installation
14. After installing the connector, mask the mounting point with **KS/KSG** polystyrene discs - so-called flush-mounted installation

surface mounting



recessed installation with polystyrene disc



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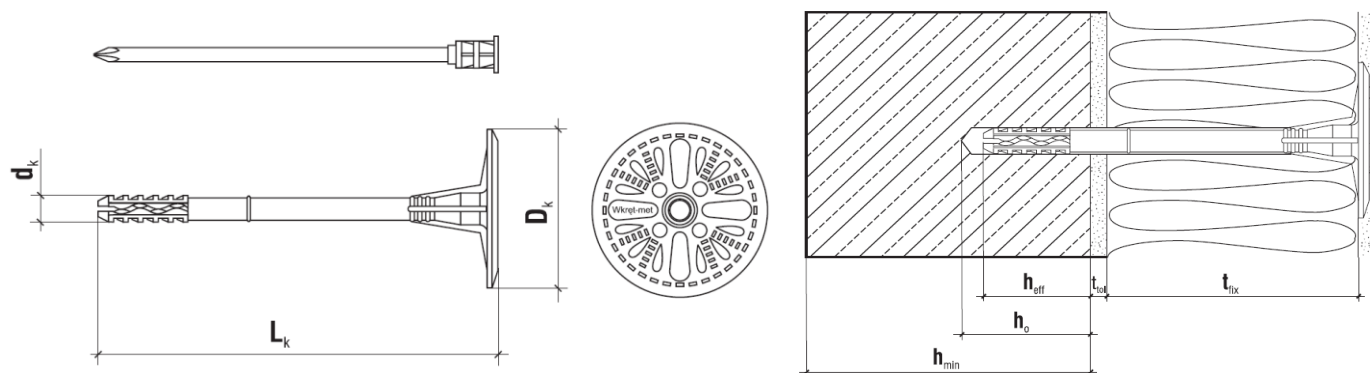
Section 3. SPECIFICATIONS

TECHNICAL PARAMETERS			
Parameter	Unit	Value	
Connector diameter	d_k [mm]	10	
Plate diameter	D_k [mm]	60	
Anchorage depth	h_{eff} [mm]	30/50*	
Depth of hole	h_o [mm]	40/60*	
Point thermal conductivity	χ [W/K]	Surface mounting	Built-in installation
		0,004	0,002
Plate rigidity	S [kN/mm]	0,50	
Utility categories	[-]	ABCDE	
Connector material	[-]	PE	
Stem material	[-]	Galvanised steel, PA coated header	
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	≥ 2,25	0,75
A	Concrete C20/25-C50/60	≥ 2,30	0,90
B	Solid ceramic brick	≥ 2,00	0,90
B	Solid silicate brick	≥ 2,00	0,90
C	Silicate channel blocks	≥ 1,60	0,90
C	Ceramic hollow brick	≥ 1,20	0,90
C	Porotherm 25	≥ 0,80	0,50
D	Lightweight concrete blocks	≥ 0,88	0,90
E	AAC2 aerated concrete	≥ 0,35	0,75
E	AAC7 aerated concrete	≥ 0,65	0,90

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 buildings (t _{tol} adhesive layer of 10mm included)		Old buildings (t _{tol} adhesive layer of 10mm + 20mm of old plaster 20mm included)		
		Without cutter	With cutter	Without cutter	With cutter	
LMX-10070	10x70	30/10*	50/30*	10/-*	30/10*	200
LMX-10090	10x90	50/30*	70/50*	30/10*	50/30*	200
LMX-10110	10x110	70/50*	90/70*	50/30*	70/50*	200
LMX-10120	10x120	80/60*	100/80*	60/40*	80/60*	200
LMX-10140	10x140	100/80*	120/100*	80/60*	100/80*	200
LMX-10160	10x160	120/100*	140/120*	100/80*	120/100*	200
LMX-10180	10x180	140/120*	160/140*	120/100*	140/120*	200
LMX-10200	10x200	160/140*	180/160*	140/120*	160/140*	200
LMX-10220	10x220	180/160*	200/180*	160/140*	180/160*	100
LMX-10240	10x240	200/180*	220/200*	180/160*	200/180*	100
LMX-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 Sp. z o.o. is not responsible for the correctness and quality of the connection.