

# LMX-8

Universal hammer driven fastener with metal pin - short expansion zone



## Description

Universal fastener for fastening polystyrene and mineral wool

## Type of insulation material with which the fastener is to be used



Polystyrene foam EPS



Polystyrene foam EPS



Mineral wool

## ETAG 014 use cat.

A	B	C	D	E
Concrete	Solid clay bricks, Calcium silicate bricks	Porous blocks	Elements on LAC lightweight aggregate	Aerated concrete

## Features and advantages of the product



**NEW IMPROVED DESIGN**  
embedding of  
25 and 65 mm

Owing to the new design of the expansion zone the fastener can be installed in all substrate categories while maintaining its high strength parameters



**Metal nail's head sealed in plastic**

Reduced point thermal transmittance enhances the heat transfer coefficient of the whole barrier, and additionally protects the pin against corrosion



**Innovative design of the plug**

Large amount of pocket adhesives on the support washer increases the adhesiveness of the mortar  
Greater stiffness of the support washer means better holding power of the material fixture

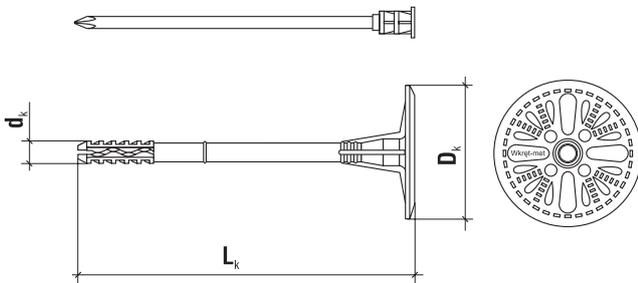


**Short expansion zone, 8 mm diameter**

Less drilling required – time and work saving solution

# LMX-8

Universal hammer driven fastener with metal pin - short expansion zone



Product marking

<b>LMX</b>	<b>08</b>	<b>095</b>	<b>(200)</b>
Fastener type	Diameter	Length	number of pieces in a box

### PRODUCT RANGE

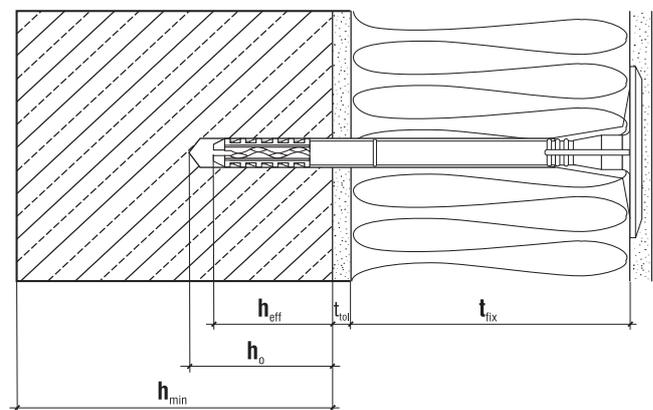
	Code	$d_k \times L_k$ [mm]	Insulation material thickness $t_{fix}$ [mm]				Pcs
			New buildings		Old buildings		
			$t_{tot}$ adhesive layer of 10 mm		$t_{tot}$ adhesive layer of 10 mm + 20 mm of old plaster		
			without cutter	with cutter	without cutter	with cutter	
<b>Ø8</b>	<b>LMX08095(200)</b>	8x95	60/20*	80/40*	40/-*	60/20*	200
	<b>LMX08115(200)</b>	8x115	80/40*	100/60*	60/20*	80/40*	200
	<b>LMX08135(200)</b>	8x135	100/60*	120/80*	80/40*	100/60*	200
	<b>LMX08155(200)</b>	8x155	120/80*	140/100*	100/60*	120/80*	200
	<b>LMX08175(200)</b>	8x175	140/100*	160/120*	120/80*	140/100*	200
	<b>LMX08195(200)</b>	8x195	160/120*	180/140*	140/100*	160/120*	200

\* - for substrate use category E (aerated concrete)

### TECHNICAL DATA

Parameter	Unit	Value	
Plug diameter	$d_k$ [mm]	8	
Washer diameter	$D_k$ [mm]	60	
Anchorage depth	$h_{eff}$ [mm]	25/65*	
Drilled hole depth	$h_o$ [mm]	35/75*	
Thermal conductivity	$\chi$ [W/K]	Surface mount	immersed mount
		0.004	0.002
Washer stiffness	$S$ [kN/mm]	0.50	
Use categories	-	<b>A B C D E</b>	
Plug material	-	PE	
Pin material	-	Carbon steel, nylon coated head	
Technical Approval	-	<b>ETA-16/0509</b>	

\* - for substrate use category E (aerated concrete)



# LMX-8

Universal hammer driven fastener with metal pin - short expansion zone

**NEW IMPROVED DESIGN!**

## RESISTANCE

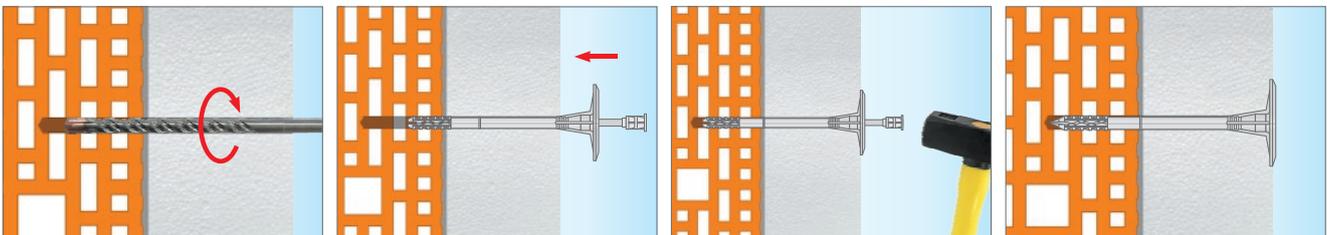
ETAG 014 use cat.	Substrate	Density [kg/dm <sup>3</sup> ]	Characteristic pull-out resistance
A	Concrete C12/15	≥ 2.25	0.50
A	Concrete 20/25 - C50/60	≥ 2.30	0.75
B	Solid clay bricks	≥ 2.00	0.75
B	Calcium silica solid brick	≥ 2.00	0.75
C	Calcium silicate hollow blocks	≥ 1.60	0.75
C	Vertically perforated clay bricks	≥ 1.20	0.60
C	Porothem 25	≥ 0.80	0.40
D	Lightweight concrete blocks LAC	≥ 0.88	0.75
E	Autoclaved aerate concrete AAC2	≥ 0.35	0.75
E	Autoclaved aerate concrete AAC7	≥ 0.65	0.90

Partial safety factor for anchor resistance  $\gamma_m = 2$  (valid in absence of national regulations)

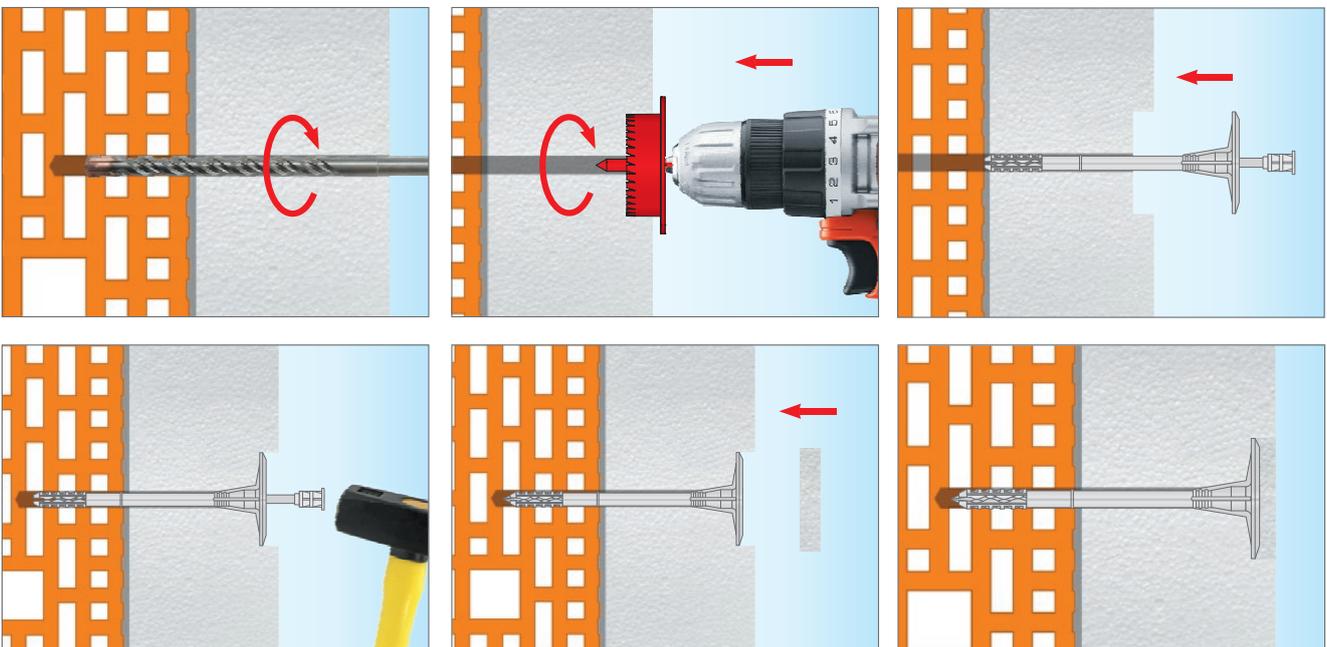
## INSTALLATION DATA

Fastener type	LMX 8
Min. base material thickness $h_{min}$ [mm]	100
Minimum anchor spacing $L_{05}$ [mm]	100
Minimum edge distance $C_{min}$ [mm]	100

### Installation spot visible



### Installation spot covered up with a polystyrene disc



# LMX-10

Universal hammer driven fastener with metal pin - short expansion zone



## Description

Universal fastener for fastening polystyrene and mineral wool

## Type of insulation material with which the fastener is to be used



Polystyrene foam EPS



Polystyrene foam EPS



Mineral wool

ETAG 014 use cat.

A	B	C	D	E
Concrete	Solid clay bricks, Calcium silicate bricks	Porous blocks	Elements on LAC lightweight aggregate	Aerated concrete

## Features and advantages of the product



**NEW IMPROVED DESIGN**  
embedding of  
30 and 50 mm

Owing to the new design of the expansion zone the fastener can be installed in all substrate categories while maintaining its high strength parameters



**Metal nail's head sealed in plastic**

Reduced point thermal transmittance enhances the heat transfer coefficient of the whole barrier, and additionally protects the pin against corrosion



**Innovative design of the plug**

Large amount of pocket adhesives on the support washer increases the adhesiveness of the mortar  
Greater stiffness of the support washer means better holding power of the material fixture



**Short expansion zone**

Less drilling required – time and work saving solution

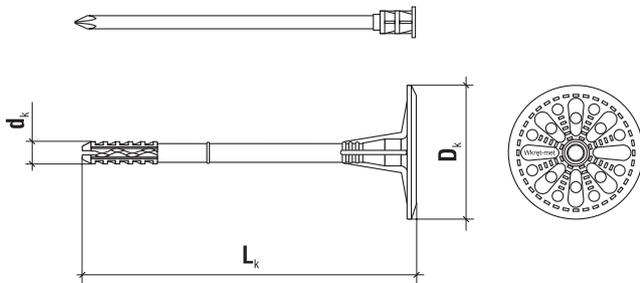


**For ventilated facades**

**Fastener is approved for installing insulation in ventilated façade systems under AT-15-9399/2014 Technical Approval**

# LMX-10

## Universal hammer driven fastener with metal pin - short expansion zone



### Product marking

<b>LMX</b>	<b>10</b>	<b>070</b>	<b>(200)</b>
Fastener type	Diameter	Length	Number of pieces in a box

### PRODUCT RANGE

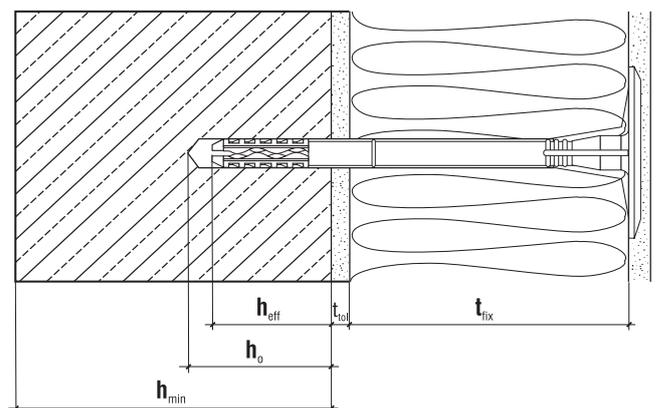
	Code	$d_k \times L_k$ [mm]	Insulation material thickness $t_{fix}$ [mm]				Pcs
			New buildings		Old buildings		
			without cutter	with cutter	without cutter	with cutter	
<b>Ø10</b>	<b>LMX10070(200)</b>	10x70	30/10*	50/30*	10/-*	30/10*	200
	<b>LMX10090(200)</b>	10x90	50/30*	70/50*	30/10*	50/30*	200
	<b>LMX10110(200)</b>	10x110	70/50*	90/70*	50/30*	70/50*	200
	<b>LMX10120(200)</b>	10x120	80/60*	100/80*	60/40*	80/60*	200
	<b>LMX10140(200)</b>	10x140	100/80*	120/100*	80/60*	100/80*	200
	<b>LMX10160(200)</b>	10x160	120/100*	140/120*	100/80*	120/100*	200
	<b>LMX10180(200)</b>	10x180	140/120*	160/140*	120/100*	140/120*	200
	<b>LMX10200(200)</b>	10x200	160/140*	180/160*	140/120*	160/140*	200
	<b>LMX10220(100)</b>	10x220	180/160*	200/180*	160/140*	180/160*	100
	<b>LMX10260(100)</b>	10x260	220/200*	240/220*	200/180*	220/200*	100

\* - for substrate use category E (aerated concrete)

### TECHNICAL DATA

Parameter	Unit	Value
Plug diameter	$d_k$ [mm]	10
Washer diameter	$D_k$ [mm]	60
Anchorage depth	$h_{eff}$ [mm]	30/50*
Drilled hole depth	$h_o$ [mm]	40/60*
Thermal conductivity	$\chi$ [W/K]	Surface mount
		0.004
Thermal conductivity	$\chi$ [W/K]	immersed mount
		0.002
Washer stiffness	$S$ [kN/mm]	0.50
Use categories	-	<b>A B C D E</b>
Plug material	-	PE
Pin material	-	Carbon steel, nylon coated head
Technical Approval	-	<b>ETA-16/0509</b>

\* - for substrate use category E (aerated concrete)



# LMX-10

Universal hammer driven fastener with metal pin - short expansion zone

**NEW IMPROVED DESIGN!**

## RESISTANCE

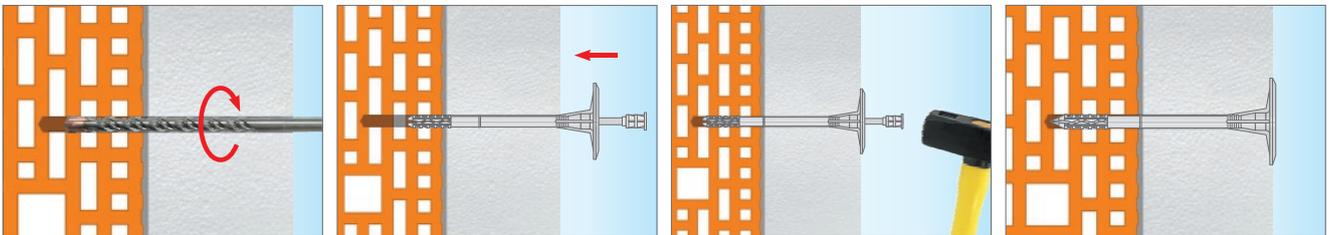
ETAG 014 use cat.	Substrate	Density [kg/dm <sup>3</sup> ]	Characteristic pull-out resistance
A	Concrete C12/15	≥ 2.25	0.75
A	Concrete C20/25 - C50/60	≥ 2.30	0.90
B	Solid clay bricks	≥ 2.00	0.90
B	Calcium silica solid brick	≥ 2.00	0.90
C	Calcium silicate hollow blocks	≥ 1.60	0.90
C	Vertically perforated clay bricks	≥ 1.20	0.90
C	Porotherm 25	≥ 0.80	0.50
D	Elements on LAC lightweight aggregate	≥ 0.88	0.90
E	Autoclaved aerate concrete AAC2	≥ 0.35	0.75
E	Autoclaved aerate concrete AAC7	≥ 0.65	0.90

Partial safety factor for anchor resistance  $\gamma_m = 2$  (valid in absence of national regulations)

## INSTALLATION DATA

Fastener type	LMX 10
Min. base material thickness $h_{min}$ [mm]	100
Minimum anchor spacing $L_{os}$ [mm]	100
Minimum edge distance $C_{min}$ [mm]	100

### Installation spot visible



### Installation spot covered up with a polystyrene disc

