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PRODUCT DATA SHEET – WKTHERM-8

Section 1. PRODUCT DESCRIPTION

HAMMER DRIVEN FASTENER WITH METAL PIN AND SHORT EXPANSION ZONE

WKTHERM-8

Hammer driven fastener with metal pin and short expansion zone WKTHERM-8 is made from polyethylene, and the pin from galvanized steel, with the head sealed in glass-fibre reinforced polyamide which reduces spot thermal conductivity of the fastener. Sealing rings on the head of the pin protect it against corrosion. Fastener WKTHERM-8 should be used to transfer loads of wind suction forces and applied as an additional mechanical fixing for the whole system, recommended for:

- **EPS polystyrene**
- **XPS polystyrene**
- **mineral wool (with support washer TDX-90 and TDX-140)**
- **mineral wool lamella board (with support washer TDX-90 and TDX-140)**

Types of substrates on which fastener WKTHERM-8 can be installed according to EAD 330196-01-0604:

A	B	C
		
Concrete	Solid brick, silicate brick	Verticaly perforated ceramic brick

Fasteners have European Technical Assessment: ETA-13/0107

POLSKI PRODUCENT



Plastic-coated steel shank head

Innovative sleeve design

Short expansion zone, 8mm diameter

pre-assembled connectors

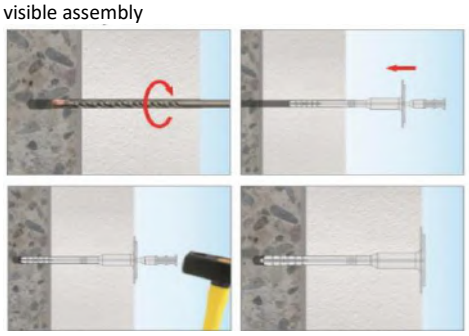




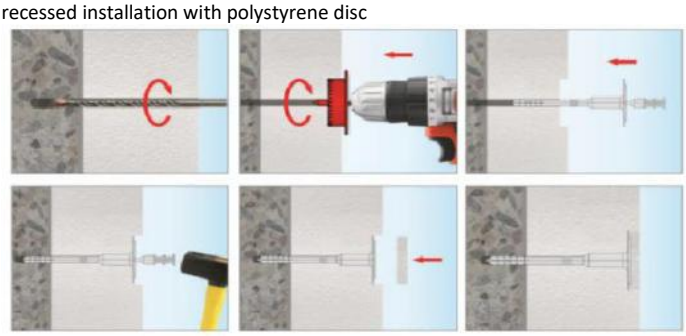
Section 2. METHOD OF INSTALLATION

1. Before installation identify the substrate and select suitable fasteners
2. Select adequate length of the fastener so that expansion zone is in the construction material of the wall
3. Minimum length of the fastener is: $L_d=t_{fix}+t_{tol}+h_{eff}$, where: t_{fix} - thickness of insulation material to be fixed, t_{tol} - thickness of sub-crusts (adhesive + existing plaster), h_{eff} - depth of fastener anchorage in the substrate (given in the sheet and in Technical Approval)
4. Before installation prepare the substrate as recommended by ETICS manufacturer
5. Fix thermal insulation panels correctly using an adhesive
6. Diameter of drilled holes should match diameter of the fasteners used
7. Drilled holes in substrates of solid materials should be deeper by min. 10 mm compared to the fastener anchorage depth
8. Clean the holes drilled in solid materials of drillings with a back and forth motion of the drill at a reduced speed, repeating it four times
9. Drill the holes in substrates of hollowed bricks without impact as this will cause breakage of inner walls of the substrate and reduce pull-out resistance of fasteners
10. Fix the fasteners so that the installation spot matches the area where adhesive is placed on a thermal insulation panel
11. Embed the fastener body so that the fastener washer is faced with thermal insulation material
12. Then drive the fastener pin to firmly attach the fastener
13. Fasteners can be installed in cut holes using plastic cutter for cutting holes in polystyrene **WK-FT** – so-called immersed mount
14. Once the fastener is installed, cover up the installation spot using polystyrene discs **KS/KSG** – so-called immersed mount

visible assembly



recessed installation with polystyrene disc



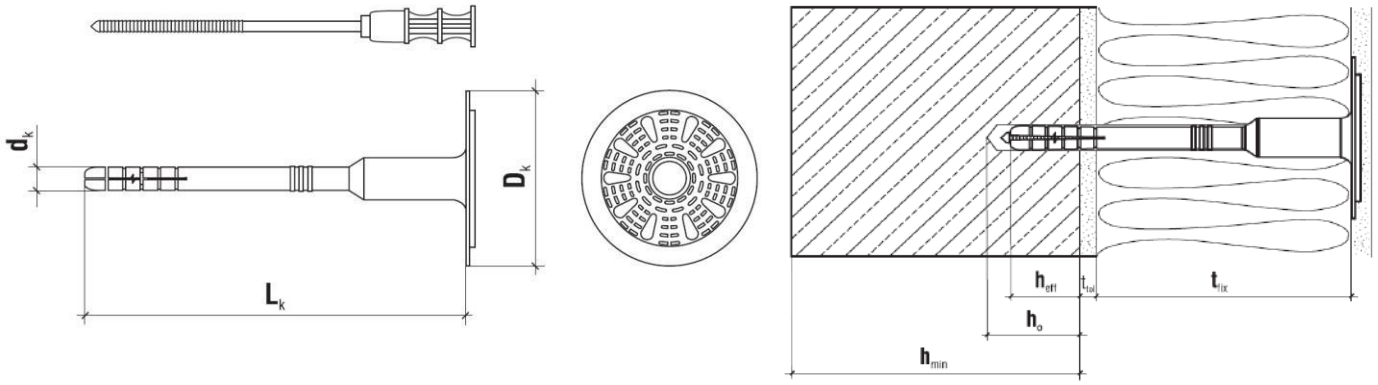
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Created: 2013-10-16 Updated: 2024-10-23

Section 3. TECHNICAL DATA

TECHNICAL		
Parameter	Unit	Value
Plug diameter	d_k [mm]	8
Plate diameter	D_k [mm]	60
Anchorage depth	h_{eff} [mm]	25
Drilled hole depth	h_0 [mm]	35
Thermal conductivity	χ [W/K]	0.002
Plate stiffness	S [kN/mm]	0.60
Use categories	[-]	A B C
Plug material	[-]	PE
Pin material	[-]	Galvanized steel, head sealed in PA + GF
European Technical Assessment	[-]	ETA-11/0232

STRENGTH PARAMETERS			
Substrate category	Substrate type	Density [kg/dm^3]	Characteristic pull-out resistance [kN]
A	Concrete C12/15	≥ 2.25	1.20
A	Concrete C16/20 – C50/60	≥ 2.30	1.50
B	Solid clay brick	≥ 1.70	1.50
B	Calcium silica solid brick	≥ 2.00	1.50
C	Calcium silicate hollow blocks	≥ 1.60	1.20
C	Perforated brick	≥ 0.95	0.60
C	Porotherm 25	≥ 0.80	0.60
C	MEGA-MAX 250	≥ 0.80	0.60

Partial safety factor γ_M=2 in absence of regulations



SELECTION TABLE						
Product code	Fastener diameter and length (d_k x L_k)	Insulation material thickness t_{fix} [mm]				Number of pieces in a box
		New buildings (t_{tol} adhesive layer of 10mm)		Old buildings (t_{tol} adhesive layer of 10mm + 20mm of old plaster)		
		Without cutter	With cutter	Without cutter	With cutter	
WKTHERM-08095	8x95	60	80	40	60	200
WKTHERM-08115	8x115	80	100	60	80	200
WKTHERM-08135	8x135	100	120	80	100	200
WKTHERM-08155	8x155	120	140	100	120	200
WKTHERM-08175	8x175	140	160	120	140	200
WKTHERM-08195	8x195	160	180	140	160	200
WKTHERM-08215	8x215	180	200	160	180	100
WKTHERM-08235	8x235	200	220	180	200	100
WKTHERM-08255	8x255	220	240	200	220	100
WKTHERM-08275	8x275	240	260	220	240	100
WKTHERM-08295	8x295	260	280	240	260	100

Section 4. REMARKS

1. All previous versions of this Product Data Sheet shall cease to be valid
2. Data given in this Product Data Sheet is in accordance with current knowledge and published in good faith. KLIMAS Sp. z o.o. is not responsible for correctness and quality of the fixing if recommendations regarding method of use and installation are not followed.

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Created: 2013-10-16 Updated: 2024-10-23