

PRODUCT DATA SHEET - WKTHERM S-8






Section 1. PRODUCT DESCRIPTION

SCREWED-IN FASTENER WITH METAL PIN AND SHORT EXPANSION ZONE - WKTHERM S-8

Screwed-in fastener with metal pin and short expansion zone WKTHERM S-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 S8 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 support washer TDX-90 and TDX-140)
- mineral wool lamella board (with support washer TDX-90 and TDX-140)

Types of substrates on which the WKTHERM S-8 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 |

The fasteners have the European Technical Assessment: ETA-13/0724



Plastic-coated metal pin head



screw fastener - TORX socket



innovative sleeve design



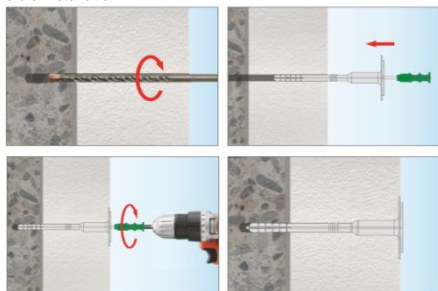
short expansion zone, 8 mm diameter



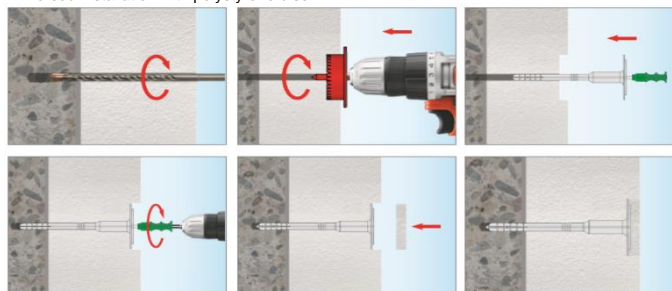
Section 2. INSTALLATION METHOD

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 the applied thermal insulation, t_{tol} - thickness of the 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 screw in the pin, gently tightening the fastener to the thermal insulation (TORX-40 socket).
13. polystyrene cutter **WK-FT**, so-called flush-mounted installation
14. After installing the fastener, cover the mounting point with a **KS/KSG** polystyrene disc, the so-called recessed installation

Visible installation



Immersed installation with polystyrene disc



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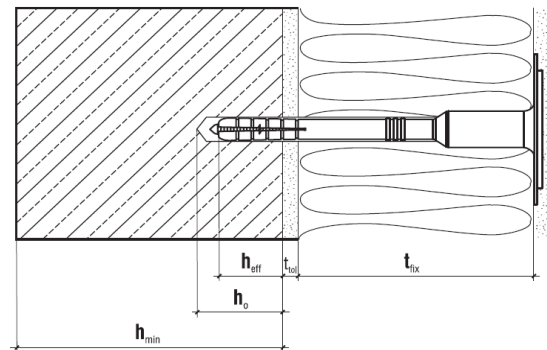
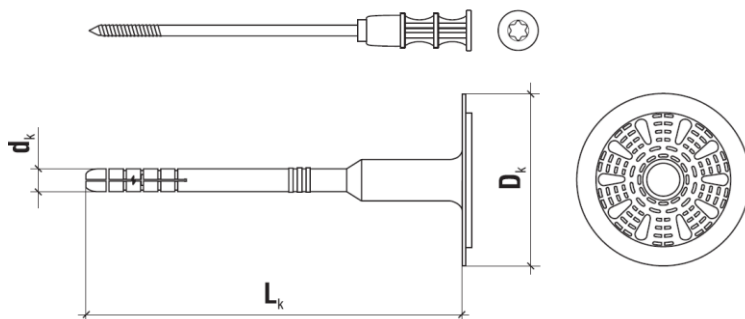
Section 3. SPECIFICATIONS

| TECHNICAL PARAMETERS | | |
|-------------------------------|----------------|--|
| Parameter | Unit | Value |
| Fastener diameter | d_k [mm] | 8 |
| Plate diameter | D_k [mm] | 60 |
| Anchorage depth | h_{eff} [mm] | 25/65* |
| Depth of hole | h_0 [mm] | 35/75* |
| Point thermal conductivity | χ [W/K] | 0,002 |
| Plate rigidity | S [kN/mm]. | 0,60 |
| Utility categories | [-] | ABCDE |
| Fastener material | [-] | PE |
| Stem material | [-] | Galvanised steel, PA+GF coated header |
| European Technical Assessment | [-] | ETA-13/0724 |

*for category E substrates (aerated concrete)

| STRENGTH PARAMETERS | | | |
|---------------------|-------------------------|-------------------------------|-----------------------------------|
| Substrate category | Type of substrate | Density [kg/dm ³] | Characteristic load capacity [kN] |
| A | Concrete C12/15 | $\geq 2,25$ | 1.20 |
| A | Concrete C16/20-C50/60 | $\geq 2,30$ | 1,50 |
| B | Solid ceramic brick | $\geq 2,00$ | 1,50 |
| B | Solid silicate brick | $\geq 2,00$ | 1,50 |
| C | Silicate channel blocks | $\geq 1,60$ | 0,90 |
| C | Ceramic hollow brick | $\geq 1,20$ | 0,75 |
| C | Lightweight concrete | $\geq 0,80$ | 0,75 |
| D | Lightweight concrete | $\geq 1,05$ | 0,90 |
| E | AAC2 aerated concrete | $\geq 0,35$ | 0,60 |
| E | AAC7 aerated concrete | $\geq 0,65$ | 1.20 |

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} 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 | |
| WK THERM-S-08095 | 8x95 | 60/20* | 80/40* | 40/-* | 60/20* | 200 |
| WK THERM-S-08115 | 8x115 | 80/40* | 100/60* | 60/20* | 80/40* | 200 |
| WK THERM-S-08135 | 8x135 | 100/60* | 120/80* | 80/40* | 100/60* | 200 |
| WK THERM-S-08155 | 8x155 | 120/80* | 140/100* | 100/60* | 120/80* | 200 |
| WK THERM-S-08175 | 8x175 | 140/100* | 160/120* | 120/80* | 140/100* | 200 |
| WK THERM-S-08195 | 8x195 | 160/120* | 180/140* | 140/100* | 160/120* | 200 |
| WK THERM-S-08215 | 8x215 | 180/140* | 200/160* | 160/120* | 180/140* | 100 |
| WK THERM-S-08235 | 8x235 | 200/160* | 220/180* | 180/140* | 200/160* | 100 |
| WK THERM-S-08255 | 8x255 | 220/180* | 240/200* | 200/160* | 220/180* | 100 |
| WK THERM-S-08275 | 8x275 | 240/200* | 260/220* | 220/180* | 240/200* | 100 |
| WK THERM-S-08295 | 8x295 | 260/220* | 280/240* | 240/200* | 260/220* | 100 |

*for category E substrates (aerated concrete)

Section 4. NOTES

- All previous versions of this Data Sheet are no longer valid
- 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.