EXTERNAL THERMAL INSULATION COMPOSITE SYSTEM – ETICS

FASTENERS FOR FIXING WALL THERMAL INSULATION WITH METAL PIN



Screwed-in fastener with metal pin and short expansion zone

WKTHERM S-8

Ø8

Modern fastener with short expansion zone for fastening of polystyrene EPS foam and mineral wool MW (in combination with TDX support collar) on all substrates according to EAD 330196-01-0604, in ETICS systems.











SUBSTRATES (EAD 330196-01-0604 ABCDE)



ETA-13/0724









Concrete

Solid clay bricks MZ, Calcium silicate solid brick KS

Hollow bricks

Elements on LAC lightweight aggregate concrete

Autoclaved aerated concrete AAC

FASTENER MATERIAL	Polyethylene (PE)
PIN MATERIAL	Carbon steel
HEAD MATERIAL	Polyamide (PA) with glass fiber
INSTALLATION METHOD	Surface mount Immerged mount
FASTENER TYPE	Screwed-in
APPLICATION	Universal screwed-in fastener for all substrates
TYPE OF INSULATION MATERIAL	Polystyrene EPS, Polystyrene XPS Mineral wool MW



METAL PIN'S HEAD SEALED IN PLASTIC

Very low point thermal transmittance (0.002 W/K) enhances the heat transfer coefficient of the whole barrier and additionally protects the pin against corrosion.



SCREW-IN FIXING, TX-40

Screw-driven fastener recommended for use in soft materials to avoid damaging of the substrate with a hammer. Screw-driven pin guarantees achieving best strength parameters and facilitates flush fitting of the fastener with the insulation material. These fasteners are real time-savers.



INNOVATIVE DESIGN OF THE FASTENER

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



SHORT EXPANSION ZONE, 8 mm DIAMETER

New expansion zone provides for maximum strength of the fastener with a minimum workload and maintaining low equipment outlays.



WKTHERM S-8 Length range: 95 - 295 mm

Metal pin + head covered with plastic PA

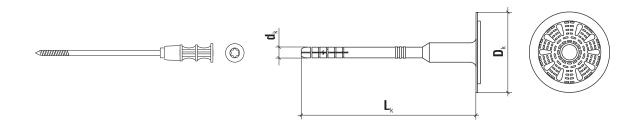
with glass fiber



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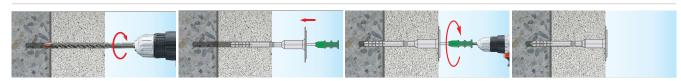


			Insulation material thickness $\mathbf{t}_{\mathrm{fix}}$ [mm]				
	Dimensions	New buildings		Old buildings		Pack unit	
	Product code	t _{tol} adhesiv	t _{tol} adhesive l	ayer of 10 mm	t _{tol} adhesive layer of 10 mm + 20 mm of old plaster		
		d _k x L _k [mm]	without cutter	with cutter	without cutter	with cutter	[pcs.]
WKTHERM S-8							
	WKTHERM-S-08095(200)	8x95	60/20*	80/40*	40/-*	60/20*	200
	WKTHERM-S-08115(200)	8x115	80/40*	100/60*	60/20*	80/40*	200
	WKTHERM-S-08135(200)	8x135	100/60*	120/80*	80/40*	100/60*	200
	WKTHERM-S-08155(200)	8x155	120/80*	140/100*	100/60*	120/80*	200
	WKTHERM-S-08175(200)	8x175	140/100*	160/120*	120/80*	140/100*	200
ø8	WKTHERM-S-08195(200)	8x195	160/120*	180/140*	140/100*	160/120*	200
	WKTHERM-S-08215(100)	8x215	180/140*	200/160*	160/120*	180/140*	100
	WKTHERM-S-08235(100)	8x235	200/160*	220/180*	180/140*	200/160*	100
	WKTHERM-S-08255(100)	8x255	220/180*	240/200*	200/160*	220/180*	100
	WKTHERM-S-08275(100)	8x275	240/200*	260/220*	220/180*	240/200*	100
	WKTHERM-S-08295(100)	8x295	260/220*	280/240*	240/200*	260/220*	100

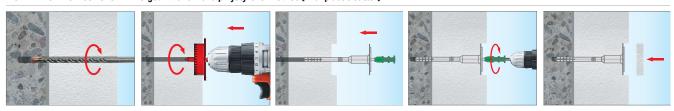
^{* -} for substrate use category E (Autoclaved aerated concrete)

Product marking - WKTHERM-S-08095(200)				
WKTHERM-S	08	095	(200)	
Fastener type	Diameter	Length	Number of pieces in a box	

INSTALLATION INSTRUCTIONS - surface mount



INSTALLATION INSTRUCTIONS - immerged mount with a polystyrene EPS disc (with plastic cutter)



AVAILABLE ACCESSORIES

SEE PAGE 69





Screwed-in fastener with metal pin and short expansion zone

WKTHERM S-8 - TECHNICAL DATA





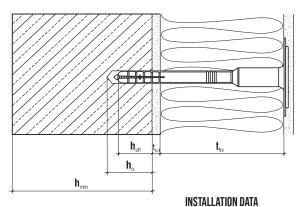
ETA-13/0724

TECHNICAL PARAMETERS

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Parameter	Unit	Value	
Fastener diameter	d _k [mm]	8	
Collar diameter	D _k [mm]	60	
Effective anchorage depth	h _{eff} [mm]	25/65*	
Hole depth	h [mm]	35/75*	
Point thermal transmittance	χ [W/K]	surface mount	Immerged mount
		0,002	0,002
Collar stiffness	S [kN/mm]	0,60	
Substrate category	-	ABCDE	
Fastener material	-	PE	
Pin material	-	Carbon steel, head covered with plastic (PA+GF)	
European Technical Assessment	-	ETA-13/0724	

^{* -} for substrate use category E (Autoclaved aerated concrete)



LOAD RESISTANCE

EAD 330196- 01-0604 use cat.	Substrate	Density [kg/dm³]	Characteristic pull-out resistance [kN]
Α	Concrete C12/15	≥ 1,80	1,20
Α	Concrete C16/20-C50/60	≥ 2,30	1,50
В	Solid clay bricks	≥ 2,00	1,50
В	Calcium silicate solid brick	≥ 2,00	1,50
C	Calcium silicate hollow blocks	≥ 1,60	0,90
C	Perforated solid brick	≥ 1,20	0,75
C	Lightweight concrete hollow block HBL	≥ 0,80	0,75
D	Lightweight aggregate concrete - LAC	≥ 1,05	0,90
E	Autoclaved aerated concrete AAC 2	≥ 0,35	0,60
E	Autoclaved aerated concrete AAC 7	≥ 0,65	1,20

Fastener type	WKTHERM-S 8
Min. substrate thickness h _{min} [mm]	100
Minimum fastener spacing L _{os} [mm]	100
Minimum edge distance C _{min} [mm]	100

Pull-trought test with insulation [kN]

R panel	EPS 035/60 mm	EPS 040/60 mm
	0,47 [kN]	0,47 [kN]

Partial safety factor for fastener resistance $Y_m = 2.0$ (valid in absence of national regulations)



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WKTHERM S-8 - INSTALLATION ACCESSORIES

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Plastic cutter for polystyrene EPS

WK-FT

diameter Ø66.7 mm

Specifications:

- Plastic cutter for cutting holes in polystyrene EPS insulation material for insertion of polystyrene EPS disc.
- Controlled cutting depth, thrust collar with a diameter of 90 mm.

Metal cutter for mineral wool

WK-FM

diameter Ø64 mm

Specifications:

- Metal cutter for drilling of holes in mineral wool for immersed mount of fasteners.
- Controlled cutting depth, support collar of 95 mm in diameter.



Polystyrene disc (white, graphite)

KS, KSG

dimensions \emptyset 67 x 17 mm

Specifications:

 Polystyrene disc (white, graphite) for covering up work holes in polystyrene - installation immerged mount.

Mineral wool disc

EDMW

dimensions \emptyset 67 x 17 mm

Specifications:

· Mineral wool disc, density 130 kg/m³.



Additional collar

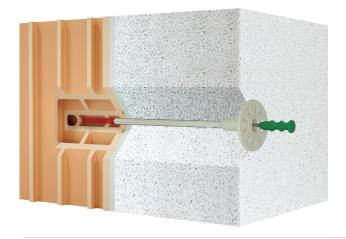
TDX-90, TDX-140

diameters Ø90 mm, Ø140 mm

Specifications:

 Additional collar with diameter of 90 or 140 mm for final securing touches in installation of mineral wool MW (including Lamella) - Fibreglass reinforced plastic.





ANCHORAGE DEPTH ONLY 25 mm*

Reduced drilling depth saves time and money. WKTHERM fasteners offer substantial benefits. They also offer an innovative approach to thermal protection of buildings. WKTHERM fasteners combine the features of metal and plastic pin fasteners.

*for substrate category ABCD; 65 mm for cat. E

