

## Knauf Schlagdübel SZ8 plus

Approved, thermal-bridge free insulation anchor nail with steel-plastic compound nail

### Product description

Insulation anchor nail with European technical approval featuring an innovative compound nail for thermal-bridge free surface bonding of Knauf WARM WALL systems.

High pull-out loads are achieved in all conventional building materials thanks to the asymmetric expansion element and the steel tip. With its integrated compression crumple zone and a dowel plate thickness of just 2.5 mm, the dowel plates are placed exactly flush in the insulation material.

#### Storage

Store in a dry place.

#### Quality

The product is subject to continuous production control and is certified to DIN EN ISO 9001.

#### European technical approval

ETA-09/0394

### Field of application

Knauf Schlagdübel SZ8 plus (insulation anchor nail) for structurally relevant anchoring of all Knauf WARM WALL systems with mineral base coat render.

The dowels can be combined with the Dübeltellern (dowel plates) DT 90 and DT 140. Applicable for all conventional anchoring substrates such as concrete, solid masonry and hollow masonry blocks as well as porous lightweight aggregate concrete. (Use categories A, B, C and D).

### Properties and added value

- Can be used for all conventional substrates (use categories A, B, C and D)
- Fully thermal-bridge free (Chi value class of 0.000 from 80 mm insulation thickness)
- Very thin dowel plate thickness (2.5 mm)
- For insulation thicknesses up to 340 mm
- Safety guaranteed by the high characteristic strength
- For application with EPS, mineral wool and wooden fibre insulation boards, PF Slimtherm 022 and PU Purtherm 026
- Precision dowel plate penetration via compression crumple zone
- Permanent compression pressure
- Pre-installed screw for fast installation

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## Application

### Dowel selection

The dowel length to be used is dependent on the thickness of the ETICS. The dowel must be anchored to a depth of at least 35 mm in the supporting wall substrate. When applied on hollow blocks, avoid excessive dowel lengths as only the first stone shell is used for anchoring purposes. Old render and adhesive must be added to the insulation material thickness.

### Dowel arrangement

The material consumption specification is in accordance with the approval taking the DIN 1055-4 into consideration. The required quantity of dowels can be determined with the assistance of our dowel calculator in the Knauf Extranet. Further information on the dowel quantity and arrangement can be found in the relevant data sheets for the Knauf WARM WALL systems.

### Drill holes

The drill hole diameter must be at least 8 mm. We recommend an SDS drill bit with a 4-way cutting tip for drilling the holes.

Should the drill bits be worn, correct ventilation is essential in order to fully remove the drill dust completely from the borehole.

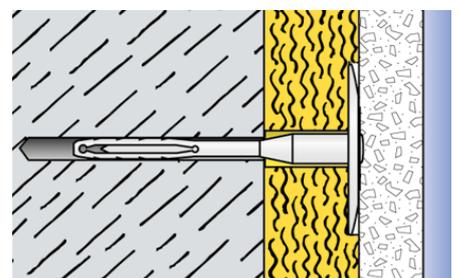
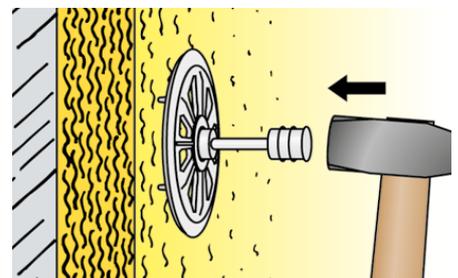
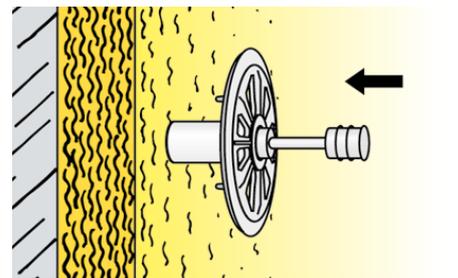
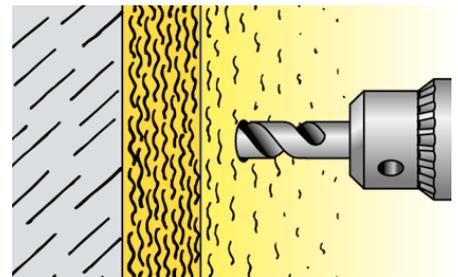
The drill holes must be drilled at right angles to the surface with a hammer drill, but the impact or hammer drill action may not be used with vertical coring brick. The drill hole depth in the substrate is at least 45 mm. Remove dust and drill dust from the drill hole.

### Dowel plates

When using MW Wolle 035 and MW Wolle 035 plus use additional Dämmteller DT 90, and with MW Volamit 040 use Dämmteller DT 140. Further technical information can be found in the System Data Sheet P323 Knauf WARM WALL Plus.

### Installation

The dowels are knocked in until flush with the insulation material using a hammer. If the dowel does not grip correctly due to the condition of the substrate, it must be removed and reapplied. Avoid installation at temperatures  $\leq 0^{\circ}\text{C}$ . Installed dowels must be plastered over within 6 weeks.



## Technical data

Dowel diameter	8 mm
Dowel plate diameters	60 mm
Dowel thickness	2.5 mm
Drill hole depth	45 mm
Effective anchoring depth $h_{ef}$	35 mm
Use categories acc. to ETAG 014	A, B, C, D
European technical approval	ETA-09/0394
Heat loss coefficient	$\chi_i = 0.000 \text{ W/K}^*$
Dowel shank material	Polypropylene
Dowel plate material	Glass-fibre reinforced polyamide
Dowel main material	Compound nail made of glass-fibre reinforced polyamide and electrically galvanized steel

## Dowel load classes / area of application

The following anchoring substrate dependent dowel load classes apply for the Schlagdübel SZ8 plus:

Use category acc. to ETAG 014	Wall material	Permissible service loads (ETA - 09/0394)
A	Concrete (C12/15)	0.30 kN
	Concrete (C16/20)	0.30 kN
	Concrete (C50/60)	0.30 kN
B	Solid brick	0.30 kN
	Limestone blocks	0.30 kN
	Solid brick/blocks made of light concrete	0.20 kN
C	Sand-lime perforated bricks	0.167 kN
	Vertical coring bricks	0.20 kN
	Hollow blocks made of light concrete	0.20 kN
D	Lightweight aggregate concrete (compressive strength $\geq 6 \text{ N/mm}^2$ )	0.20 kN

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## Dowel types and accessories

Article designation and length (mm)	Material number	Packaging units per package	Use categories: A-D insulation (mm)	
			New building	Old building <sup>1)</sup>
Schlagdübel SZ8 plus 110	00207256	100 pieces	60 mm	40 mm
Schlagdübel SZ8 plus 130	00207258	100 pieces	80 mm	60 mm
Schlagdübel SZ8 plus 150	00207266	100 pieces	100 mm	80 mm
Schlagdübel SZ8 plus 170	00207268	100 pieces	120 mm	100 mm
Schlagdübel SZ8 plus 190	00207269	100 pieces	140 mm	120 mm
Schlagdübel SZ8 plus 210	00207270	100 pieces	160 mm	140 mm
Schlagdübel SZ8 plus 230	00207271	100 pieces	180 mm	160 mm
Schlagdübel SZ8 plus 250	00244903	100 pieces	200 mm	180 mm
Schlagdübel SZ8 plus 270	00244905	100 pieces	220 mm	200 mm
Schlagdübel SZ8 plus 290	00244906	100 pieces	240 mm	220 mm
Schlagdübel SZ8 plus 310	00244907	100 pieces	260 mm	240 mm
Schlagdübel SZ8 plus 330	00244909	100 pieces	280 mm	260 mm
Schlagdübel SZ8 plus 350	00244910	100 pieces	300 mm	280 mm
Schlagdübel SZ8 plus 370	00244911	100 pieces	320 mm	300 mm
Schlagdübel SZ8 plus 390	00244912	100 pieces	340 mm	320 mm

<sup>1)</sup> Old building with 5 mm adhesive thickness and 20 mm old render

## Tender specification

Item	Description	No. of units	Unit price	Total price
.....	<p><b>Doweling – Schlagdübel SZ8 plus</b></p> <p>Apply additional mechanical anchoring of the insulation material with general building authority approved dowels, as a compound nail made of glass-fibre reinforced polyamide, thermal-bridge free, dowel plate thickness 2.5 mm, dowel plate diameter ≥ 60 mm.</p> <p>Determine the dowel length considering the existing plaster and insulation thickness.</p> <p>Number of dowels per m<sup>2</sup> acc. to dowel and system load class,</p> <p>Dowel arrangement according to Knauf Gips KG manufacturer's instructions as well as DIN 1055-4.</p> <p>Anchoring depth: ≥ 35 mm with dowel length 110-390 mm.</p> <p>Dämmteller with mineral wool is necessary:                      DT 90 (with MW Wolle 035, MW Wolle 035 plus)/ Dämmteller DT 140 (with MW Volamit) *.*</p> <p>Area A: ..... m<sup>2</sup> / Dowel count: ..... pcs/m<sup>2</sup>                      Area B: ..... m<sup>2</sup> / Dowel count: ..... pcs/m<sup>2</sup></p> <p>Products: <b>Knauf Schlagdübel SZ8 plus</b>  <b>Knauf Dämmteller DT 110/ DT 140 *</b></p>	..... m <sup>2</sup>	..... €	..... €
* Cross out non-applicable items				Sub-total ..... €



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