

The free thermal bridging ETICS hammer set fixing with GRP nail



Polystyrene rigid foam boards



Setting the hammer set fixing on polystyrene rigid foam boards

BUILDING MATERIALS

- Building material classes A, B, C, D, E
- Concrete
- Building brick
- Solid sand-lime brick
- Hollow blocks made from lightweight concrete
- Vertically perforated brick
- Perforated sand-lime brick
- Lightweight aggregate concrete
- Aerated concrete

APPROVALS



ADVANTAGES

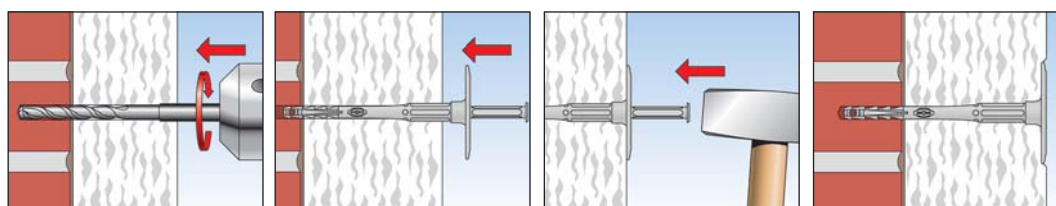
- To set with few hammer blows.
- The disc fits tight into the insulation thanks to its thickness of only 2.5 mm. Thus allows the application of low-cost, thin reinforcement layers.
- Optimised retention forces thanks to the glass fibre reinforced plastic nail (GRP).
- Small anchoring depth of 35 mm saves on drilling times.
- Thanks to the GRP nail, the fixing is free of thermal bridging with the Chi value 0.000 [W/K].
- The compression zone in the shank allows the disc to be drawn precisely into the insulation.
- Can be combined with the insulating discs DT 90, DT 110 and DT 140 for very soft insulating materials.
- For insulating material thicknesses up to 180 mm.

APPLICATIONS

- Attachment of ETICS insulating boards on concrete and masonry
- Flush-to-surface installation in ETICS insulating materials and mineral wool e.g. polystyrene

FUNCTIONING

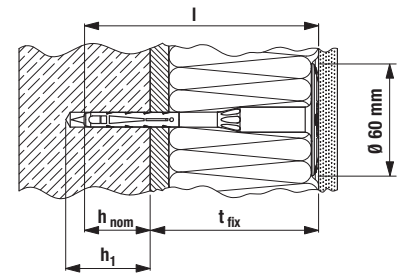
- The fixing is set in push-through installation.
- Simple, fast setting by driving the GRP nail in using a standard hammer.
- Non load bearing layers such as adhesive and old plaster are included in the maximum useful length.



TECHNICAL DATA



termoz PN 8



t_{fix} = thickness of insulation + glue + old render

Item	Art.-No.	Approval ETA	Drill hole diameter d_0 [mm]	Min. drill hole depth h_1 [mm]	Effect. anchorage depth h_{nom} [mm]	Anchor length l [mm]	Max. usable length t_{fix} [mm]	Disk \varnothing [mm]	Sales unit [pcs]
termoz PN 8/110	506325	■	8	45	35	108	70	60	100
termoz PN 8/130	506326	■	8	45	35	128	90	60	100
termoz PN 8/150	506327	■	8	45	35	148	110	60	100
termoz PN 8/170	506328	■	8	45	35	168	130	60	100
termoz PN 8/190	506329	■	8	45	35	188	150	60	100
termoz PN 8/210	506330	■	8	45	35	208	170	60	100
termoz PN 8/230	506331	■	8	45	35	228	190	60	100

for building material class D + E: $h_1 = 65$ mm, $h_{nom} = 55$ mm

LOADS

termoz PN 8³⁾

Highest permissible loads for a single anchor^{1) 4)} for multiple use for non-structural applications.

For the design the complete assessment ETA-09/O171 has to be considered.

Type	Brick raw density ρ [kg/dm ³]	min. compressive brick strength f_b [N/mm ²]	min. embedment depth h_{nom} [mm]	min. member thickness h_{min} [mm]	Concrete and masonry		
					permissible tensile load ³⁾ N_{perm} [kN]	min. spacing ²⁾ s_{min} [mm]	min. edge distance ²⁾ c_{min} [mm]
Concrete							
PN 8	C12/15		35 ⁵⁾	100	0,17	100	100
	C16/20				0,17		
	C50/60				0,17		
Solid Clay bricks e.g. acc. to DIN 105-100:2012-01, EN 771-1:2011, Mz							
PN 8	$\geq 2,0$	12	35 ^{5) 6)}	100	0,20	100	100
Calcium silicate solid bricks, e.g. acc. to DIN V 106:2005-10, EN 771-2:2011, KS							
PN 8	$\geq 1,8$	12	35 ^{5) 6)}	100	0,20	100	100
Vertically perforated clay bricks e.g. acc. to DIN 105-100:2012-01, EN 771-1:2011, HLz							
PN 8	$\geq 1,0$	12	35 ^{5) 7)}	100	0,13	100	100
Hollow calcium silicate brick, acc. to DIN V 106:2005-10, EN 771-2:2011, KSL							
PN 8	$\geq 1,4$	12	35 ^{5) 6)}	100	0,13	100	100
Hollow brick light-weight concrete, e.g. acc. to DIN V 18153-100: 2005-10, EN 771-3:2011 Hbl							
PN 8	$\geq 1,2$	10	35 ⁵⁾	100	0,17	100	100
Lightweight Aggregate Concrete acc. to DIN EN 1520, LAC							
PN 8	$\geq 0,9$	6	55 ^{5) 6)}	100	0,13	100	100
Autoclaved aerated concrete blocks, e.g. AAC acc. to DIN V 4165-100:2005-10, EN 771-4							
PN 8	$\geq 0,5$	4	55 ^{5) 7)}	100	0,10	100	100
	$\geq 0,6$	6	55 ^{5) 7)}		0,13		

¹⁾ The partial safety factors for material resistance as regulated in the assessment as well as a partial safety factor for load actions of $\gamma_L = 1,5$ are considered.

²⁾ Minimum possible axial spacings resp. edge distances acc. assessment.

³⁾ Plastic anchor for fixing of external thermal insulation composite systems with rendering acc. ETAG014. Only tensile wind loads are permitted.

⁴⁾ The given loads are valid for installation and use of fixations in dry masonry for temperatures in the substrate up to +24 °C (resp. short term up to 40 °C).

⁵⁾ Restrictions concerning the manufacturer and the permissible hole patterns as well as the web thickness see assessment.

⁶⁾ Hammer drilling

⁷⁾ Rotary drilling