

# The innovative countersinkable ETICS fixing for all building material classes



Setting procedure termoz SV II ecotwist in polystyrene rigid foam boards 032



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### BUILDING MATERIALS

- Building material classes A, B, C, D, E
- Concrete
- Concrete (weather shell)
- Building brick
- Solid sand-lime brick
- Hollow blocks made from lightweight concrete
- Vertically perforated brick
- Perforated sand-lime brick
- Aerated concrete
- Lightweight aggregate concrete
- Sepa Parpaing (French brick)

### APPROVALS



### ADVANTAGES

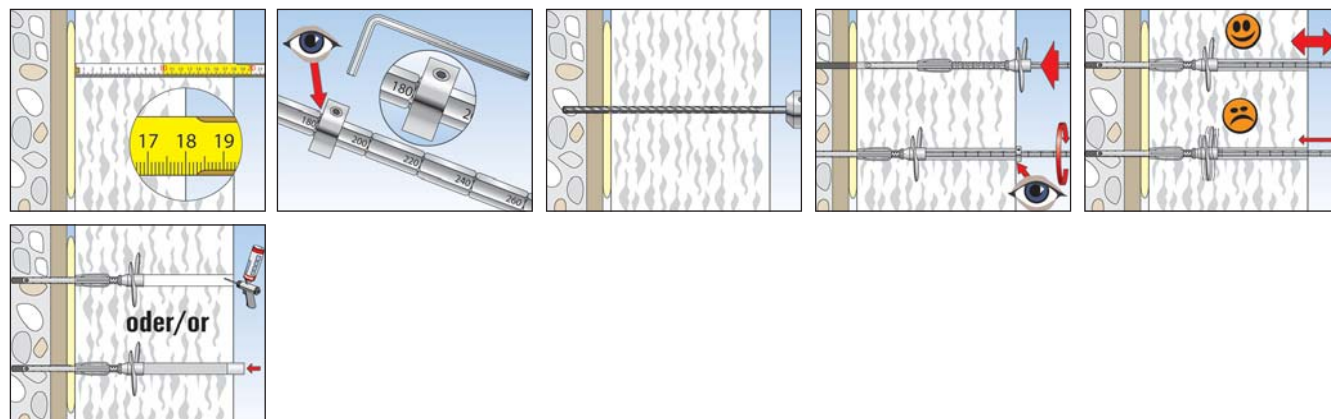
- Standard anchoring depth for all building materials.
- One fixing for all insulating material thicknesses from 100 mm to 400 mm. This increases productivity, saves time and storage space.
- Sturdy setting tool with stop disc for a simple and precise setting procedure.
- The screw disc cuts in cleanly, without damaging the insulating material.
- Simple setting using the specially designed setting tool.

### APPLICATIONS

- Attachment of ETICS polystyrene rigid foam boards and similar mineral wool boards to concrete and masonry materials
- Counterbored installation

### FUNCTIONING

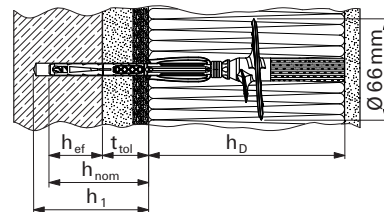
- The fixing is inserted through the insulating material into the drill hole and screwed in using the setting tool.
- The screwing disc and screw have the same pitch, which means they turn at the same time through the insulation until the anti-rotation lock meets the base.
- Then the steel screw turns into the expansion zone. The compression zone is compressed until it is only a few millimetres thick and the fixing is anchored in the base.
- The setting process is completed when the marking ring is flush with the insulation.



## TECHNICAL DATA



termoz SV II ecotwist



Item	Art.-No.	Approval ETA	Insulation thickness $h_D$ [mm]	Shaft dia- meter [mm]	Thickness tolerance compensation $t_{tol}$ [mm]	Effect. anchorage depth $h_{ef}$ [mm]	Shaft length in drill hole $h_{nom}$ [mm]	Drillhole depth in base material $h_1$ [mm]	Total drill hole depth [mm]	Sales unit [pcs]
<b>termoz SV II ecotwist 0-10</b>	<b>530353</b>	■	100 - 400	8	0 - 10	35	45	55	$h_D + 55$	100
<b>termoz SV II ecotwist 10-30</b>	<b>530354</b>	■	100 - 400	8	0 - 30	35	65	75	$h_D + 75$	100
<b>termoz SV II ecotwist 30-60</b>	<b>530355</b>	■	100 - 400	8	30 - 60	35	95	105	$h_D + 105$	100

## ACCESSORIES



termoz SV II closing plug PS



termoz SV II Installation tool



termoz SV II closing plug MW

Item	Art.-No.	Sales unit [pcs]
<b>termoz SV II closing plug PS</b>	<b>530654</b>	200
<b>termoz SV II closing plug MW</b>	<b>536160</b>	200
<b>termoz SV II installation tool 260 mm</b>	<b>530356</b>	1
<b>termoz SV II installation tool 400 mm</b>	<b>530357</b>	1

## LOADS

### termoz SV II ecotwist<sup>3)</sup>

Highest permissible loads for a single anchor<sup>1)4)</sup> for multiple use for non-structural applications.  
For the design the complete approval ETA-12/0208 has to be considered.

	Brick raw density $\rho$ [kg/dm <sup>3</sup> ]	min. compressive brick strength $f_b$ [N/mm <sup>2</sup> ]	min. embedment depth $h_{ef}$ [mm]	Min. member thickness $h_{min}$ [mm]	Concrete and masonry		
					permissible tensile load <sup>3)</sup> $N_{perm}$ [kN]	min. spacing <sup>2)</sup> $s_{min}$ [mm]	min. edge distance <sup>2)</sup> $c_{min}$ [mm]
<b>Concrete acc. EN 206:2013</b>							
SV II ecotwist	$\geq$ C12/15	35 <sup>5)</sup>	100	100	0,50	100	100
	$\geq$ C16/20			100	0,50	100	100
	C50/60			100	0,50	100	100
<b>Weather shell, concrete</b>							
SV II ecotwist	$\geq$ C20/25	35 <sup>5)</sup>	40	100	0,30	100	100
<b>Calcium silicate solid bricks, e.g. acc. to DIN V 106:2005-10, EN 771-2:2011, KS</b>							
SV II ecotwist	$\geq$ 2	12	35 <sup>5)6)</sup>	100	0,40	100	100
	$\geq$ 2	20	35 <sup>5)6)</sup>	100	0,50	100	100
<b>Solid Clay bricks e.g. acc. to DIN 105-100:2012-01, EN 771-1:2011, Mz</b>							
SV II ecotwist	$\geq$ 1,8	12	35 <sup>5)6)</sup>	100	0,40	100	100
<b>Solid concrete block, e.g. acc. to DIN V 18152-100:2005-10 EN 771-3:2011, Vbn</b>							
SV II ecotwist	$\geq$ 2	12	35 <sup>5)6)</sup>	100	0,40	100	100
	$\geq$ 2	20	35 <sup>5)6)</sup>	100	0,50	100	100
<b>Hollow calcium silicate brick, acc. to DIN V 106:2005-10, EN 771-2:2011, KSL</b>							
SV II ecotwist	$\geq$ 1,4	12	35 <sup>5)6)</sup>	100	0,25	100	100
	$\geq$ 1,4	20	35 <sup>5)6)</sup>	100	0,40	100	100
<b>Vertically perforated clay bricks e.g. acc. to DIN 105-100:2012-01, EN 771-1:2011, HLz</b>							
SV II ecotwist	$\geq$ 1,0	12	35 <sup>5)7)</sup>	100	0,25	100	100
<b>Solid lightweight concrete block, e.g. acc. to DIN V 18152-100:2005-10 EN 771-3:2011 Vbl</b>							
SV II ecotwist	$\geq$ 1,4	8	35 <sup>5)6)</sup>	100	0,20	100	100
<b>Hollow brick light-weight concrete, e.g. acc. to DIN V 18153-100: 2005-10, EN 771-3:2011 Hbl</b>							
SV II ecotwist	$\geq$ 1,2	8	35 <sup>5)6)</sup>	100	0,30	100	100
	$\geq$ 1,2	10	35 <sup>5)6)</sup>	100	0,40	100	100
<b>Lightweight Aggregate Concrete acc. to DIN EN 1520, LAC</b>							
SV II ecotwist	$\geq$ 0,9	6	35 <sup>5)</sup>	100	0,25	100	100
<b>Autoclaved aerated concrete blocks, e.g. AAC acc. to DIN V 4165-100:2005-10, EN 771-4</b>							
SV II ecotwist	$\geq$ 0,5	4	35 <sup>7)</sup>	100	0,13	100	100

<sup>1)</sup> The partial safety factors for material resistance as regulated in the approval as well as a partial safety factor for load actions of  $\gamma_F = 1,5$  are considered.

<sup>2)</sup> Minimum possible axial spacings resp. edge distances acc. approval.

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

<sup>4)</sup> 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).

<sup>5)</sup> Restrictions concerning the manufacturer and the permissible hole patterns as well as the web thickness see approval.

<sup>6)</sup> Hammer drilling

<sup>7)</sup> Rotary drilling