EKSPLUATĀCIJAS ĪPAŠĪBU DEKLARĀCIJA

Dop Nr. KEW - 1109-CPR-2002 **- lv**

1. Produkta tipa unikālais identifikācijas kods: Ieskrūvējams stiprinājums TSBD / TSBDL / TSBD WS

2. Tipa, partijas vai sērijas numurs vai jebkurš cits elements, kas ļauj identificēt būvizstrādājumu, kā to pieprasa 11(4) pants:

   ETA-08/0314 pielikums A1 - A3
   Partijas numurs: skatīt uz iepakojuma

3. Būvizstrādājuma paredzētais pielietojums saskaņā ar piemērojamo harmonizēto tehnisko specifikāciju, kā to paredzējis ražotājs:

vispārējs tips	Ieskrūvējams plastmasas enkurs ārējās siltumizolācijas kompozīta sistēmu ar apmetumu stiprināšanai
paredzēts lietošanai	ETA-08/0314 pielikums B1
iespēja / kategorija	ETA-08/0314 pielikums B1
ielādēšana	ETA-08/0314 pielikums B1
materiāls	ETA-08/0314 pielikums A6
temperatūras diapazons	ETA-08/0314 pielikums B1

4. Nosaukums, reģistrētais nosaukums vai reģistrētas tirdzniecības zīmes nosaukums un ražotāja kontaktadrese, kā to pieprasa 11(5). pants.

   KEW Kunststofferzeugnisse GmbH Wilthen
   Dresdener Straße 19
   02681 Wilthen
   Vācija

5. Ja piemēro, autorizētā pārstāvja, kas ir pilnvarots veikt 12(2) pantā norādītos uzdevumus, nosaukums un kontaktadrese:

   --

6. Būvizstrādājuma īpašību nemainīguma novērtēšanas un verifikācijas sistēma vai sistēmas, kā norādīts V pielikumā:

   Sistēma 2+

7. Ekspluatācijas īpašību deklarācijas attiecībā uz būvizstrādājumu, uz ko attiecas harmonizētais standarts, gadījumā:

   --

8. Ekspluatācijas īpašību deklarācijas, kas attiecas uz būvizstrādājumu, kam izsniegts Eiropas tehniskais novērtējums, gadījumā:

yra išduota: DIBt Deutsches Institut für Bautechnik

kokiu pagrindu: ETA-08/0314 uz 15.04.2015

pamatojoties uz: ETAG 014, 2011. gada februāra versija

1109-CPR izpildīja Sistēma 2+

i) sākotnējā ražotnes apskate un ražošanas procesa kontrole
ii) nepārtraukta ražošanas procesa kontroles uzraudzība, novērtēšana un apstiprināšana

Paziņotā iestāde 1109-CPR-2002

9. Deklarētās īpašības:

Būtiskie raksturlielumi	**Projektēšanas metode**	**Ekspluatācijas īpašības**		**Harmonizētā tehniskā specifikācija**
		Elektrolītiski cinkots tērauds	**nerūsējošais tērauds**	
Raksturīgā noturība	ETAG 014	ETA-08/0314 pielikums C1	ETA-08/0314 pielikums C1	ETAG 014
Minimālais šķautnes attālums un enkuru savstarpējais attālums	ETAG 014	ETA-08/0314 pielikums B2	ETA-08/0314 pielikums B2	
Nobīdes īpašības	ETAG 014	ETA-08/0314 pielikums C3	ETA-08/0314 pielikums C3	
Plātnes stingrība saskaņā ar	ETAG 014	ETA-08/0314 pielikums C2	ETA-08/0314 pielikums C2	

Ja izmanto 37. vai 38. pantā norādīto speciālo tehnisko dokumentāciju – prasības, kurām atbilst produkts: --

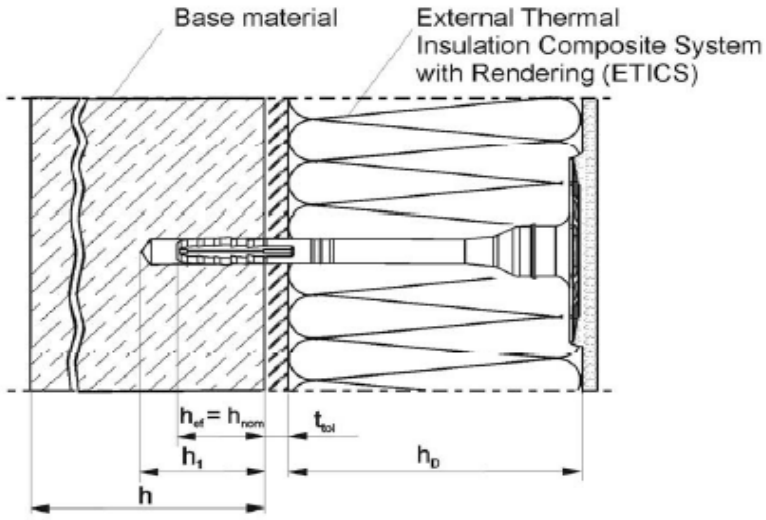
10. Produkta, kas identificēts 1. un 2. punktā, īpašības atbilst 9. punktā deklarētajām īpašībām.

Šī ekspluatācijas īpašības deklarācija ir izdota ar pilnu ražotāja, kas identificēts 4. punktā, atbildību.

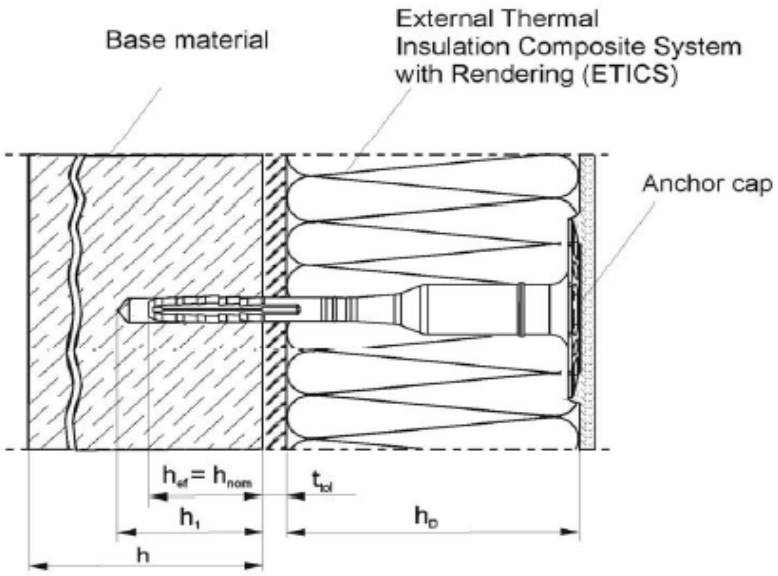
Ražotāja vārdā parakstīja:

André Gedan
(generalinis pardavimų ir rinkodaros direktorius)
Wilthen, 20.04.2018

TSBD

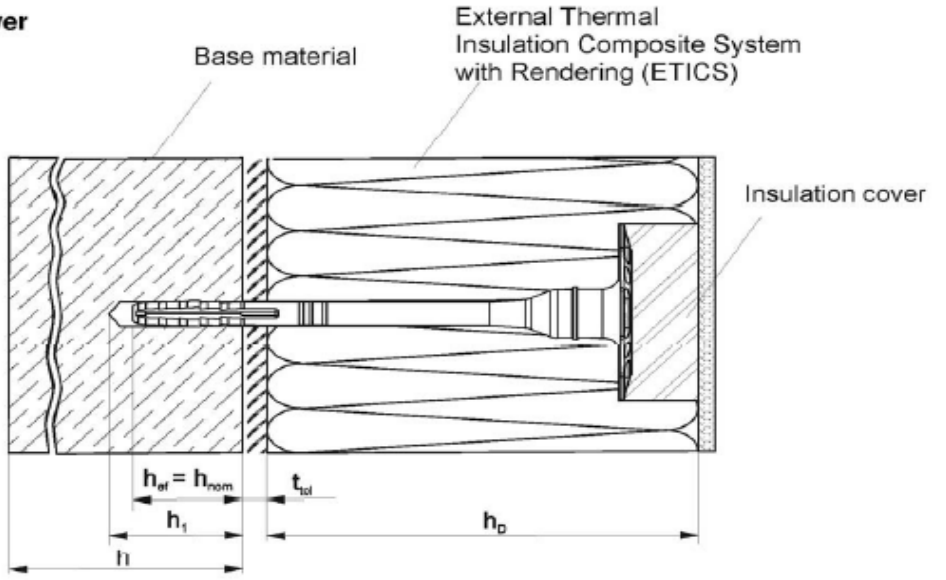


TSBDL

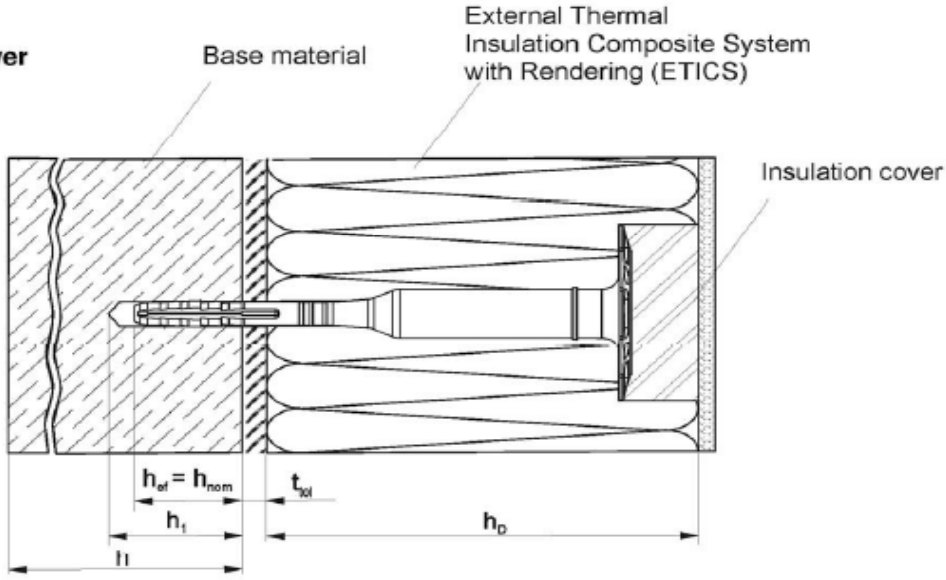


Insulation support ·TSBD · TSBDL · TSBD WS · TSBD WSG	**Annex A 1**
Product description Intended use: TSBD, TSBDL	

TSBD +
Insulation cover

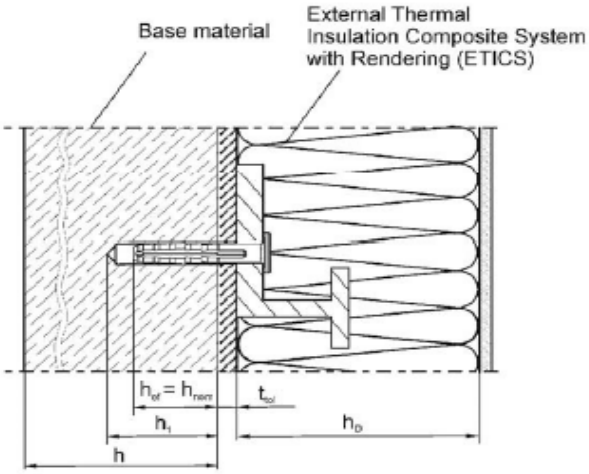


TSBDL +
Insulation cover

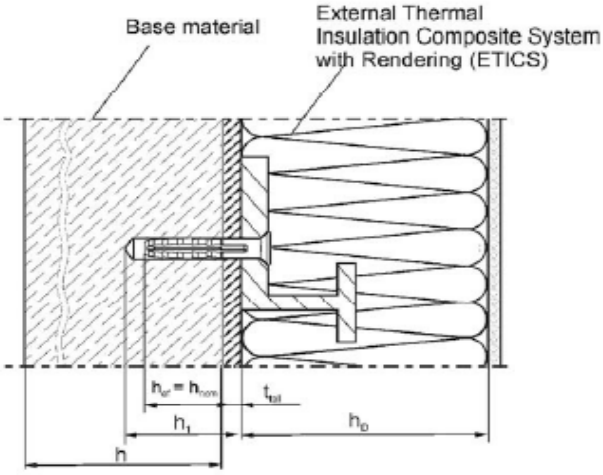


Insulation support ·TSBD · TSBDL · TSBD WS · TSBD WSG	**Annex A 2**
Product description Installed condition with insulation cover: TSBD, TSBDL	

TSBD WS



TSBD WSG



Legend

h_{ef} = effective anchorage depth

h_1 = depth of drilled hole to deepest point

h = thickness of member (wall)

h_D = thickness of insulation material

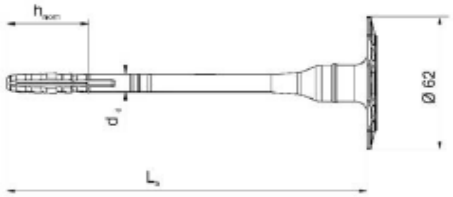
t_{tol} = thickness of equalizing layer or non-load bearing coating

Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG	**Annex A 3**
Product description Installed condition: TSBD WS, TSBD WSG	

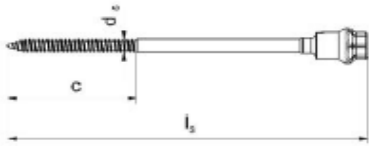
TSBD

Marking

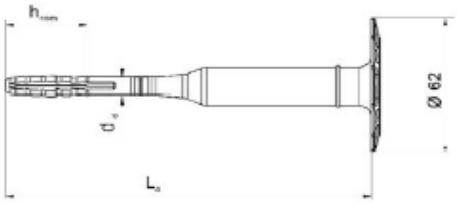
Company logo – (KEW®)
Anchor type – (TSBD)
– (TSBDL)
Diameter – (ø8)
Length of anchor – (e.g. 160)



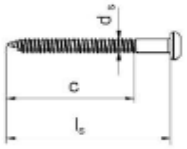
Special screw with special head



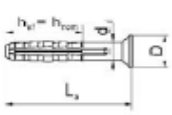
TSBDL



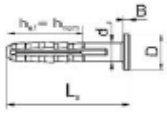
Special screw



TSBD WS / WSG

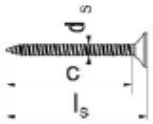


D ≥ 13,5mm



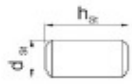
B ≥ 2,5mm
D ≥ 16mm

Special screw

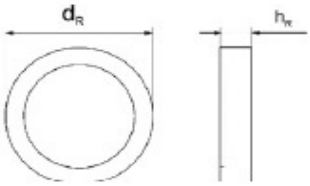


Installation tool

Anchor cap



Insulation cover



Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG	**Annex A 4**
Product description Marking of the anchor sleeve, dimensions, installation tool	

Table A1: Dimensions TSBD

Anchor type	Anchor sleeve					Special screw		
	L_a min [mm]	L_a max [mm]	d_d [mm]	h_{ef} [mm]		d_s [mm]	c [mm]	l_s [mm]
TSBD Use category (A-B-C)	100	440	8	30		5,5	52	L_a + 5mm
TSBD Use category (D-E)	100	440	8	30	50	5,5	52	L_a + 5mm
Determination of max. thickness of insulation: $h_D = L_a - h_{nom} - t_{tol}$								
e.g.: TSBD 8x160	L_a= 160			h_{ef}= 30			t_{tol}= 10	
	thickness of insulation material $h_{D\,max.}$ = 120							
e.g.: TSBD 8x160	L_a= 160			h_{ef}= 50			t_{tol}= 10	
	thickness of insulation material $h_{D\,max.}$ = 100							
Determination of max. thickness of insulation: $h_D = L_a - h_{nom} - t_{tol}$ + Insulation cover								
e.g.: TSBD 8x160 With Insulation cover 20mm	L_a= 160			h_{ef}= 30			t_{tol}= 10	
	thickness of insulation material $h_{D\,max.}$ = 140							
e.g.: TSBD 8x160 With Insulation cover 20mm	L_a= 160			h_{ef}= 50			t_{tol}= 10	
	thickness of insulation material $h_{D\,max.}$ = 120							

Table A2: Dimensions TSBDL

Anchor type	Anchor sleeve					Special screw			
	L_a min [mm]	L_a max [mm]	d_d [mm]	h_{ef} [mm]		d_s [mm]	c [mm]	$l_{s\,min}$ [mm]	$l_{s\,max}$ [mm]
TSBDL Use category (A-B-C)	100	440	8	30		5,5	52	70	310
TSBDL Use category (D-E)	100	440	8	30	50	5,5	52	70	310
Determination of max. thickness of insulation: $h_D = L_a - h_{nom} - t_{tol}$									
e.g.: TSBDL 8x160	L_a= 160			h_{ef}= 30			t_{tol}= 10		
	thickness of insulation material $h_{D\,max.}$ = 120								
e.g.: TSBDL 8x160	L_a= 160			h_{ef}= 50			t_{tol}= 10		
	thickness of insulation material $h_{D\,max.}$ = 100								
Determination of max. thickness of insulation: $h_D = L_a - h_{nom} - t_{tol}$ + Insulation cover									
e.g.: TSBDL 8x160 With Insulation cover 20mm	L_a= 160			h_{ef}= 30			t_{tol}= 10		
	thickness of insulation material $h_{D\,max.}$ = 140								
e.g.: TSBDL 8x160 With Insulation cover 20mm	L_a= 160			h_{ef}= 50			t_{tol}= 10		
	thickness of insulation material $h_{D\,max.}$ = 120								

Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG

Product description
Dimensions: TSBD, TSBDL

Annex A 5

Table A3: Dimensions TSBD WS / WSG

Anchor type	Anchor sleeve					Special screw		
	L_a min [mm]	L_a max [mm]	d_d [mm]	h_{ef} [mm]		d_s [mm]	c [mm]	l_s [mm]
TSBD WS / WSG Use category (A-B-C)	**50**	**250**	**8**	**30**		**5,5**	**52**	**L_a + 5mm**
TSBD WS / WSG Use category (D-E)	**70**	**250**	**8**	**30**	**50**	**5,5**	**52**	**L_a + 5mm**

Table A4: Dimensions Insulation cover and Anchor cap

Anchor type	Insulation cover		Anchor cap	
	d_R [mm]	h_R [mm]	d_{St} [mm]	h_{St} [mm]
TSBD	**66**	**20**	-	-
TSBDL	**66**	**20**	**13**	**30**

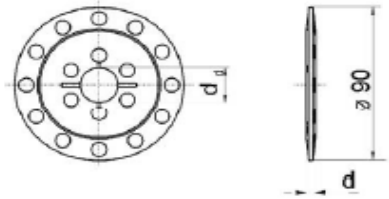
Table A5: Materials

Member	Material
Anchor sleeve	Polypropylen, colour: papyrus white
Special screw	Steel, galvanized A2L or A2K according to EN ISO 4042:2001-01
	Stainless steel; mat.No. 1.4401 – 1.4571 according to EN ISO 3506-01:2010-04
Special head on Special screw	PA GF
Anchor cap	Polystyrene
Insulation cover	Polystyrene
	Mineral wool

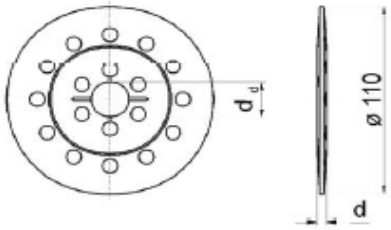
Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG	**Annex A 6**
Product description Dimensions: TSBD WS, TSBD WSG, anchor cap, insulation cover, materials	

Insulation discs

DSB 90



DSB 110



DSB 140

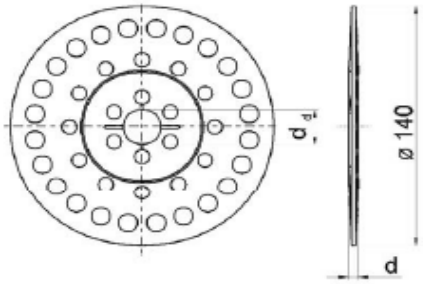


Table A6: Insulation discs, diameters and material

Insulation discs	Ø D [mm]	Ø d_d [mm]	d [mm]	Material
DSB 90	90	20	5	PA 6, PP
DSB 110	110	20	5	PA 6, PP
DSB 140	140	20	5	PA 6, PP

Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG

Product description
Additional plates in combination with TSBD, TSBDL

Annex A 7

Specifications of intended use

Anchorages subject to:

- The anchor may only be used for transmission of wind suction loads and shall not be used for the transmission of dead loads of the thermal insulation composite system.

Base materials:

- Normal weight concrete (use category A) according to Annex C 1
- Solid masonry (use category B), according to Annex C 1
- Hollow or perforated masonry (use category C), according to Annex C 1 and C 5
- Lightweight aggregate concrete (use category D), according to Annex C 1
- Autoclaved aerated concrete (use category E), according to Annex C 1
- For other base materials of the use categories A, B, C, D or E the characteristic resistance of the anchor may be determined by job site tests according to ETAG 014 Edition February 2011, Annex D.

Temperature Range:

- 0°C to +40°C (max. short term temperature +40°C and max. long term temperature +24°C)

Design:

- The anchorages are designed in accordance with the ETAG 014 Edition February 2011 under the responsibility of an engineer experienced in anchorages and masonry work.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored.
- Fasteners are only to be used for multiple fixings of thermal insulation composite systems.

Installation:

- Hole drilling by the drill modes according to Annex C 1
- Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.
- Installation temperature from 0°C to +40°C
- Exposure to UV due to solar radiation of the anchor not protected by rendering ≤ 6 weeks

Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG	**Annex B 1**
Intended Use Specifications	

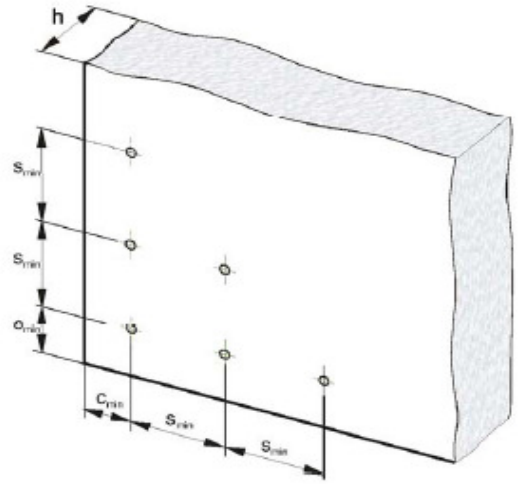
Table B1: Installation parameters

Anchor type			TSBD, TSBDL		
			Use category		
			A-B-C	D-E	
Drill hole diameter	$d_0 =$	[mm]	8	8	
Cutting diameter of drill bit	$d_{cut} \leq$	[mm]	8,45	8,45	
Depth of drilled hole to deepest point	$h_1 \geq$	[mm]	40	40	60
Effective anchorage depth	$h_{ef} =$	[mm]	30	30	50

Table B2: Minimum distances and dimensions

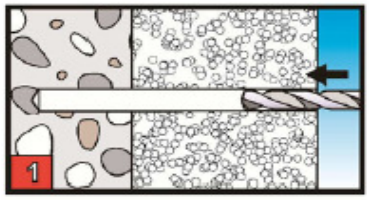
			TSBD, TSBDL
Minimum thickness of member	$h =$	[mm]	100
Minimum allowable spacing	$s_{min} =$	[mm]	100
Minimum allowable edge distance	$c_{min} =$	[mm]	100

Edge and spacing distances

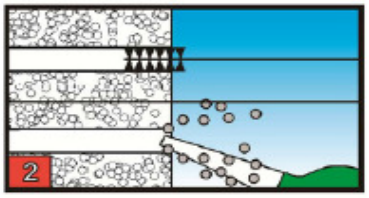


Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG	Annex B 2
Intended Use Installation parameters, Edge distances and spacing	

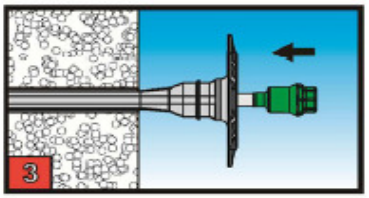
Installation instructions TSBD surface-flush mounted



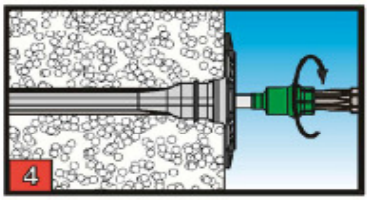
Create a hole considering the drill method according Annex C 1



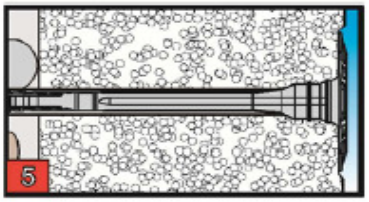
Holes to be cleaned of drilling dust



Insert the anchor into the hole until the plate rests on the insulation.



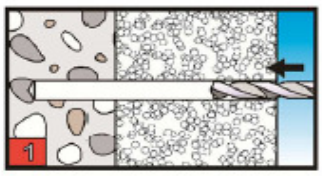
Set the screw with the matching bit



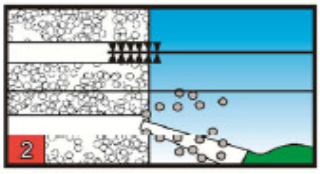
Surface-flush mounted

Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG	**Annex B 3**
Intended Use Installation instructions TSBD - surface-flush mounted	

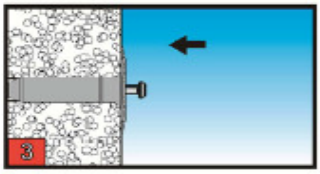
Installation instructions TSBDL surface-flush mounted



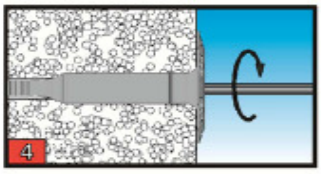
Create a hole considering the drill method according Annex C 1



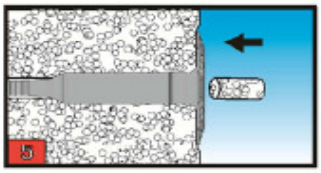
Holes to be cleaned of drilling dust



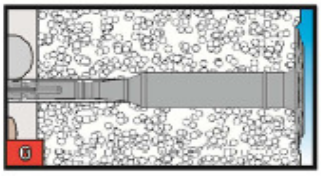
Insert the anchor into the hole until the plate rests on the insulation.



Set the screw with the matching bit



Put the anchor cap in to the anchor

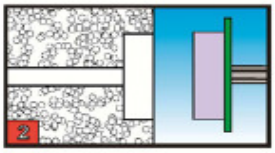


Surface-flush mounted

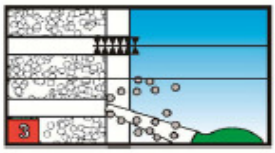
Insulation support ·TSBD · TSBDL · TSBD WS · TSBD WSG	**Annex B 4**
Intended Use Installation instructions TSBDL - surface-flush mounted	

Installation instructions TSBD countersunk

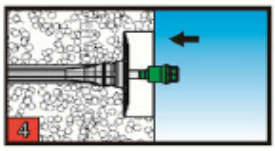
Create a hole considering the drill method according Annex C 1



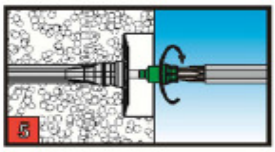
Countersink the insulation



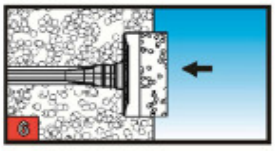
Holes to be cleaned of drilling dust



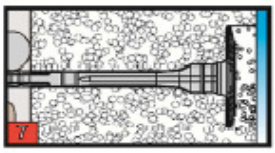
Insert the anchor into the hole until the plate rests on the insulation.



Set the screw with the matching bit



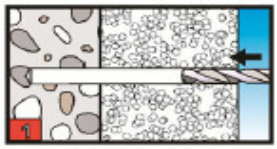
Put the Insulation cover into the insulation



countersunk installation

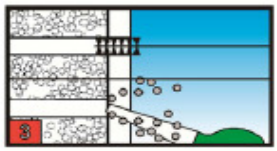
Insulation support ·TSBD · TSBDL · TSBD WS · TSBD WSG	**Annex B 5**
Intended Use Installation instructions TSBD – countersunk installation	

Installation instructions TSBDL countersunk

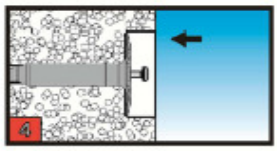


Create a hole considering the drill method according Annex C 1

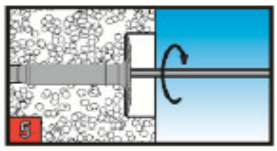
Countersink the insulation



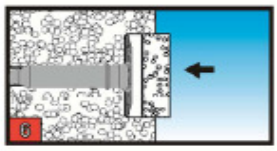
Holes to be cleaned of drilling dust



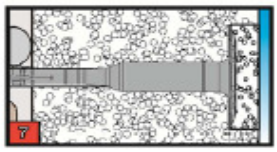
Insert the anchor into the hole until the plate rests on the insulation.



Set the screw with the matching bit



Put the Insulation cover into the insulation



countersunk installation

Insulation support ·TSBD · TSBDL · TSBD WS · TSBD WSG	**Annex B 6**
Intended Use Installation instructions TSBDL - countersunk installation	

Table C1: Characteristic resistance N_{Rk} in [kN] to tension loads for a single anchor

Base material	Bulk density-class ρ [kg/dm³]	Minimum compressive strength f_k [N/mm²]	Remarks	Drill method	N_{Rk} [kN]
Concrete C12/15 EN 206-1:2000				Hammer drilling	**1,5**
Concrete C16/20 – C50/60 EN 206-1:2000					**1,5**
Sand-lime solid bricks , KS e.g. acc. to DIN V 106:2005-10 / EN 771-2:2011	≥1.8	12	Vertically perforation up to 15%		**1,5**
Clay bricks, Mz e.g. acc. to DIN 105-100:2012-01 / EN 771-1:2011	≥1.7	12	Vertically perforation up to 15%		**1,5**
Lightweight concrete solid blocks, Vbl 2 e.g. acc. to DIN V 18152-100:2005-10 / EN 771-3:2011	≥0.8	2	according to Annex C 5		**0,75**
Lightweight concrete solid blocks, Vbl 4 e.g. acc. to DIN V 18152-100:2005-10 / EN 771-3:2011	≥0.8	4	according to Annex C 5		**1,2**
Vertically perforated clay bricks, HLz e.g. acc. to DIN 105-100:2012-01 / EN 771-1:2011 with outer web thickness ≥ 12 mm	≥1.0	12	Vertically perforation more than 15% and less than 50%	Rotary drilling	**0,9**
Vertically perforated sand-lime bricks, KSL e.g. acc. to DIN V 106:2005-10 / EN 771-2:2011 with outer web thickness ≥ 20 mm	≥1.4	12	Vertically perforation up to 15%		**1,5**
Lightweight concrete hollow blocks, 4K Hbl e.g. acc. to DIN V 18151-100:2005-10 / EN 771-3:2011	≥0.9	2	according to Annex C 5		**0,75**
Lightweight concrete hollow blocks, 1K Hbl e.g. acc. to DIN V 18151-100:2005-10 / EN 771-3:2011	≥0.8	2	according to Annex C 5		**0,9**
Vertically perforated clay bricks, Hlz 250x380x235	≥1.0	6	according to Annex C 5		**0,5**
Lightweight aggregate concrete, LAC 4 e.g. acc. to EN 1520:2011 / EN 771-3:2011	≥1.0	4	h_{ef} ≥ 30mm	Hammer drilling	**0,4**
			h_{ef} ≥ 50mm		**0,9**
Lightweight aggregate concrete, LAC 6 e.g. acc. to EN 1520:2011 / EN 771-3:2011	≥1.0	6	h_{ef} ≥ 30mm		**0,5**
			h_{ef} ≥ 50mm		**1,2**
autoclaved aerated concrete PP4-0,5 e.g. acc. to DIN V 4165-100:2005-10 / EN 771-4:2011	≥0,5	4	h_{ef} ≥ 30mm	Rotary drilling	**0,30**
			h_{ef} ≥ 50mm		**0,75**

Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG	**Annex C 1**
Performances Characteristic resistance of the anchor	

Table C2: Point thermal transmittance according to EOTA Technical Report TR 025:2007-06

Anchor type	thickness of insulation h_D [mm]	Point thermal transmittance χ [W/K]
TSBD specific screw of galvanized steel	≤150mm	0,003
TSBD specific screw of galvanized steel	>150mm	0,002
TSBD specific screw of stainless steel	≤150mm	0,002
TSBD specific screw of stainless steel	>150mm	0,001

Anchor type	thickness of insulation h_D [mm]	Point thermal transmittance χ [W/K]
TSBD + Insulation cover specific screw of galvanized steel	≤150mm	0,002
TSBD + Insulation cover specific screw of galvanized steel	>150mm	0,002
TSBD + Insulation cover specific screw of stainless steel	≤150mm	0,001
TSBD + Insulation cover specific screw of stainless steel	>150mm	0,001

Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG	**Annex C 2**
Performances Point thermal transmittance	

Continuation of Table C2: Point thermal transmittance according to EOTA Technical Report TR 025:2007-06

Anchor type	thickness of insulation h_D [mm]	Point thermal transmittance χ [W/K]
TSBDL specific screw of galvanized steel	≤80mm	0,002
TSBDL specific screw of galvanized steel	>80mm	0,001
TSBDL specific screw of stainless steel	≤240mm	0,001
TSBDL specific screw of stainless steel	>240mm	0,000

Anchor type	thickness of insulation h_D [mm]	Point thermal transmittance χ [W/K]
TSBDL + Insulation cover specific screw of galvanized steel	≤150mm	0,001
TSBDL + Insulation cover specific screw of galvanized steel	>150mm	0,001
TSBDL + Insulation cover specific screw of stainless steel	≤100mm	0,001
TSBDL + Insulation cover specific screw of stainless steel	>100mm	0,000

Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG	**Annex C 3**
Performances Point thermal transmittance	

Table C3: Plate stiffness according to EOTA Technical Report TR 026:2007-06

Anchor type	Diameter of anchor plate [mm]	Load resistance of anchor plate [kN]	Plate stiffness [kN/mm]
TSBD	60	2,22	1,6
TSBDL	60	2,22	1,6

Table C4: Displacements

Base material	Bulk-density-class ρ [kg/dm³]	Minimum compressive strength f_k [N/mm²]	Tension load N [kN]	Displacements $\delta_m(N)$ [mm]
Concrete C12/15-C50/60 EN 206-1:2000			0,50	0,2
Sand-lime solid bricks, KS DIN V 106:2005-10 / EN 771-2:2011	≥1.8	12	0,50	0,3
Mauerziegel, Mz DIN 105-100:2012-01 / EN 771-1:2011	≥1.7	12	0,50	0,3
Lightweight concrete solid blocks, Vbl 2 DIN V 18152-100:2005-10 / EN 771-3:2011	≥0.8	2	0,25	0,3
Lightweight concrete solid blocks, Vbl 4 DIN V 18152-100:2005-10 / EN 771-3:2011	≥0.8	4	0,40	0,4
Vertically perforated clay bricks, HLz DIN 105-100:2012-01 / EN 771-1:2011	≥1.0	12	0,30	0,1
Vertically perforated sand-lime bricks, KSL DIN V 106:2005-10 / EN 771-2:2011	≥1.4	12	0,50	0,3
Lightweight concrete hollow blocks, 4K Hbl DIN V 18151-100:2005-10 / EN 771-3:2011	≥0.9	2	0,25	0,1
Lightweight concrete hollow blocks, 1K Hbl DIN V 18151-100:2005-10 / EN 771-3:2011	≥0.8	2	0,30	0,2
Vertically perforated clay bricks, Hlz 250x380x235	≥1.0	6	0,15	0,1
Lightweight aggregate concrete, LAC 4 EN 1520:2011 / EN 771-3:2011	≥1.0	4	h_{ef} > 30 mm: 0,15	0,1
			h_{ef} ≥ 50 mm: 0,30	0,2
Lightweight aggregate concrete, LAC 6 EN 1520:2011 / EN 771-3:2011	≥1.0	6	h_{ef} > 30 mm: 0,15	0,1
			h_{ef} ≥ 50 mm: 0,40	0,2
autoclaved aerated concrete DIN V 4165-100:2005-10 / EN 771-4:2011	≥0,5	4	h_{ef} > 30 mm: 0,10	0,15
			h_{ef} ≥ 50 mm: 0,25	0,01

Insulation support •TSBD • TSBDL • TSBD WS • TSBD WSG

Annex C 4

Performances
Plate stiffness
Displacements

Table C5: Geometry of Hbl acc. DIN V 18151-100:2005-10 / EN 771-3:2011

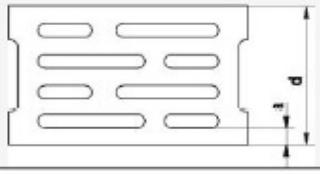
Geometry	Thinkness of brick d [mm]	Outer web in longitudinal direction a [mm]
	175	50
	240 300 365	30
The anchor shall be placed in the brick in such way, that the spreading part of the expansion sleeve is located in the outer web.		

Table C6: Geometry of Vbl according to DIN V 18152-100:2005-10 / EN 771-3:2011

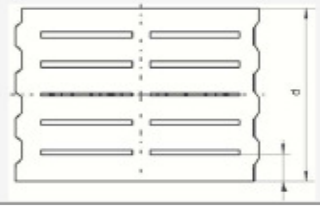
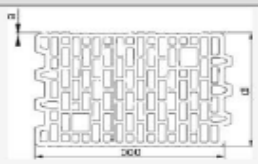
Geometry	Thinkness of brick d [mm]	Outer web in longitudinal direction a [mm]
	248 300 370	≥ 43

Table C7: Geometry of vertically perforated clay bricks Hlz 250x380x235

Geometry	Thinkness of brick d [mm]	Outer web in longitudinal direction a [mm]
	250	≥16

Insulation support ·TSBD · TSBDL · TSBD WS · TSBD WSG	Annex C 5
Performances Geometry of lightweight concrete hollow blocks and solid blocks, vertically perforated clay brick 250x380x235	