

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-17/0077
of 11 August 2022

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

weber.therm SRD-5 and weber.therm SLD-5

Product family
to which the construction product belongs

Screwed-in plastic anchor and nailed-in plastic anchor for
the fixing of external thermal insulation composite
systems with rendering in concrete and masonry

Manufacturer

Saint-Gobain Weber GmbH
Schanzenstraße 84
40549 Düsseldorf
DEUTSCHLAND

Manufacturing plant

Werk E-171, E-172, E-173, E-174

This European Technical Assessment
contains

22 pages including 3 annexes which form an integral part
of this assessment

This European Technical Assessment is
issued in accordance with Regulation (EU)
No 305/2011, on the basis of

EAD 330196-01-0604, edition 10/2017

This version replaces

ETA-17/0077 issued on 23 May 2018

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Specific Part

1 Technical description of the product

The screwed-in anchor weber.therm SRD-5 consists of an anchor sleeve with an enlarged shaft, spreading zone subsequently, an insulation plate made of virgin polyethylene and an accompanying specific screw of galvanised steel or stainless steel. The head of screw has an overmoulding of polyamide. The serrated expanding part of the anchor sleeve is slotted.

The nailed-in anchor weber.therm SLD-5 consists of an anchor sleeve with an enlarged shaft, spreading zone subsequently, an insulation plate made of virgin polyethylene and an accompanying specific nail of galvanised steel with an overmoulding of polyamide. The serrated expanding part of the anchor sleeve is slotted.

The anchors weber.therm SRD-5 and weber.therm SLD-5 may in addition be combined with the anchor plates SBL 140 plus and VT 90. The anchor weber.therm SRD-5 may in addition be combined with the anchor plate VT 2G.

An illustration and the description of the product are given in Annex A.

2 Specification of the intended use in accordance with the applicable European Assessment Document

The performances given in Section 3 are only valid if the anchor is used in compliance with the specifications and conditions given in Annex B.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the anchor of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

3 Performance of the product and references to the methods used for its assessment

3.1 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Characteristic load bearing capacity - Characteristic resistance under tension load - Minimum edge distance and spacing	See Annex C 1 See Annex B 2
Displacements	See Annex C 2
Plate stiffness	See Annex C 2

3.2 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Point thermal transmittance	See Annex C 2

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with EAD No. 330196-01-0604, the applicable European legal act is: [97/463/EC].

The system to be applied is: 2+

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable European Assessment Document

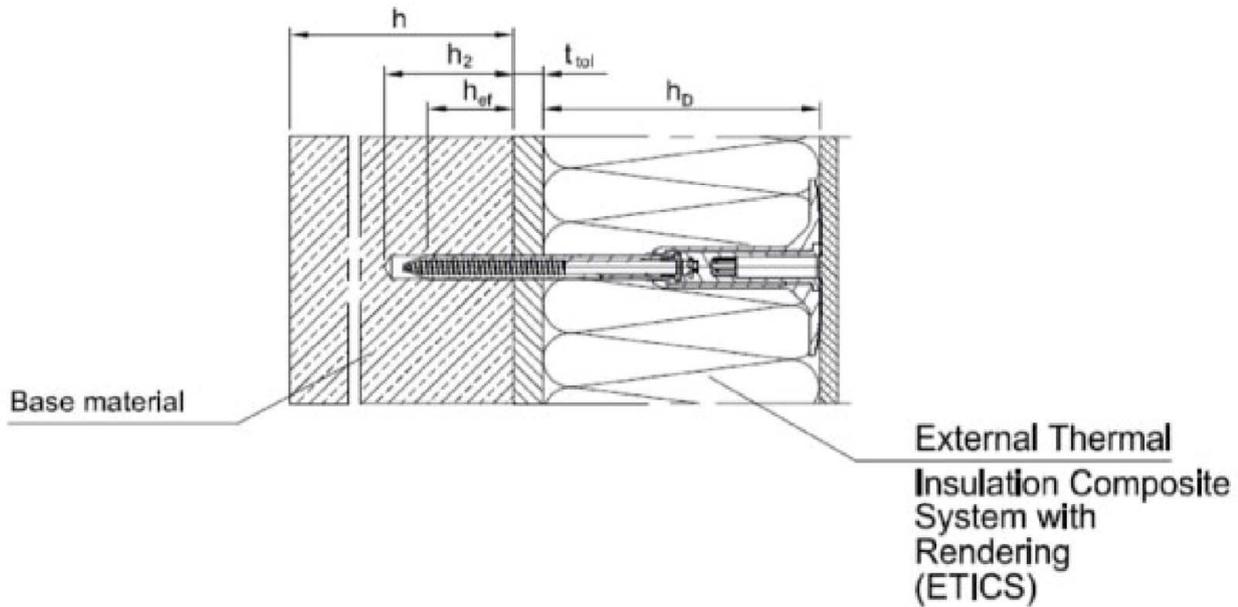
Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 11 August 2022 by Deutsches Institut für Bautechnik

Dipl.-Ing. Beatrix Wittstock
Head of Section

beglaubigt:
Ziegler

weber.therm SRD-5, mounting flushed at the surface



Intended use

- Anchorage of ETICS in concrete and masonry
- Anchorage of ETICS in autoclaved aerated concrete and lightweight aggregate concrete

Legend:

- h_D = thickness of insulation material
- h_{ef} = effective anchorage depth
- h = thickness of member (wall)
- h_2 = depth of drilled hole to deepest point
- t_{tol} = thickness of equalizing layer or non-load-bearing coating

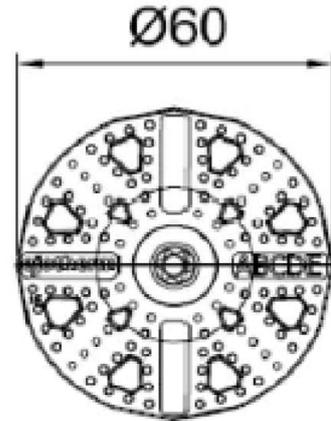
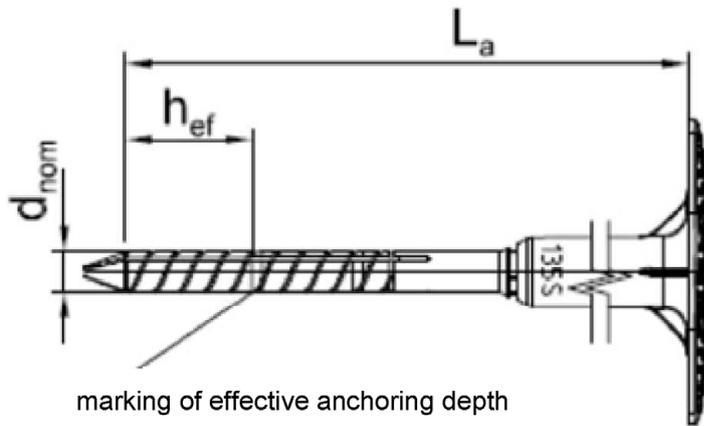
weber.therm SRD-5 and weber.therm SLD-5

Product description

Installed condition weber.therm SRD-5, flushed at the surface

Annex A 1

weber.therm SRD-5, base material group: A, B, C, D / mounting flushed at the surface



Marking:
Anchor type (weber.therm S)
Length of anchor (e.g. 135)
Base material group (A, B, C, D, E)

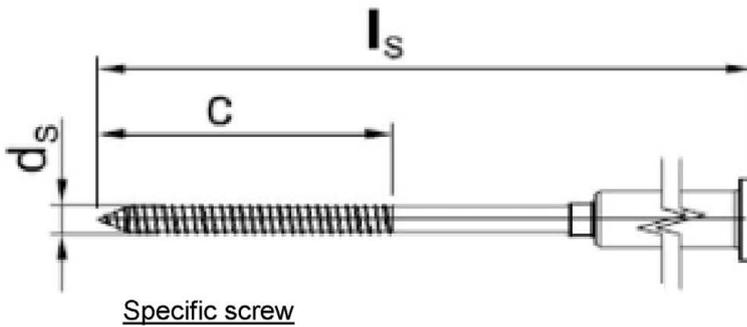


Tabelle A1: Dimensions

Anchor type	Anchor sleeve			Specific screw		
	d_{nom} [mm]	h_{ef} [mm]	min L_a max L_a [mm]	d_s [mm]	c [mm]	min l_s max l_s [mm]
weber.therm SRD-5	8	25	115 295	5,5	60/80	115 295

Determination of maximum thickness of insulation h_D [mm] for weber.therm SRD-5:

$$h_D = L_a - t_{tol} - h_{ef}$$

e.g. $h_D = 135 - 10 - 25$

$$h_{Dmax} = 100$$

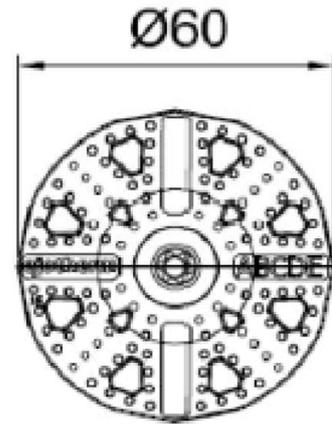
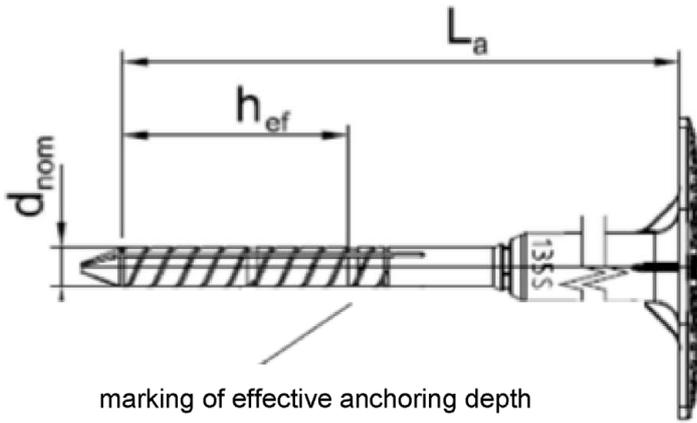
weber.therm SRD-5 and weber.therm SLD-5

Product description

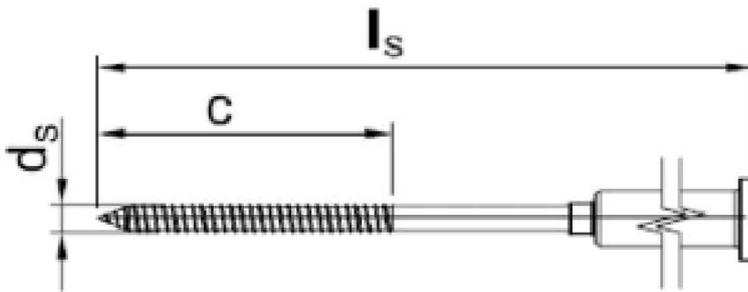
Marking and dimensions of weber.therm SRD-5,
base material group: A, B, C, D; mounting flushed at the surface

Annex A 2

weber.therm SRD-5, base material group: E / mounting flushed at the surface



Marking:
Anchor type (weber.therm S)
Length of anchor (e.g. 135)
Base material group (A, B, C, D, E)



Specific screw

Tabelle A2: Dimensions

Anchor type	Anchor sleeve			Specific screw		
	d_{nom} [mm]	h_{ef} [mm]	min L_a max L_a [mm]	d_s [mm]	c [mm]	min l_s max l_s [mm]
weber.therm SRD-5	8	45	115 295	5,5	60/80	115 295

Determination of maximum thickness of insulation h_D [mm] for weber.therm SRD-5:

$$h_D = L_a - t_{tol} - h_{ef}$$

e.g. $h_D = 135 - 10 - 45$

$$h_{Dmax} = 80$$

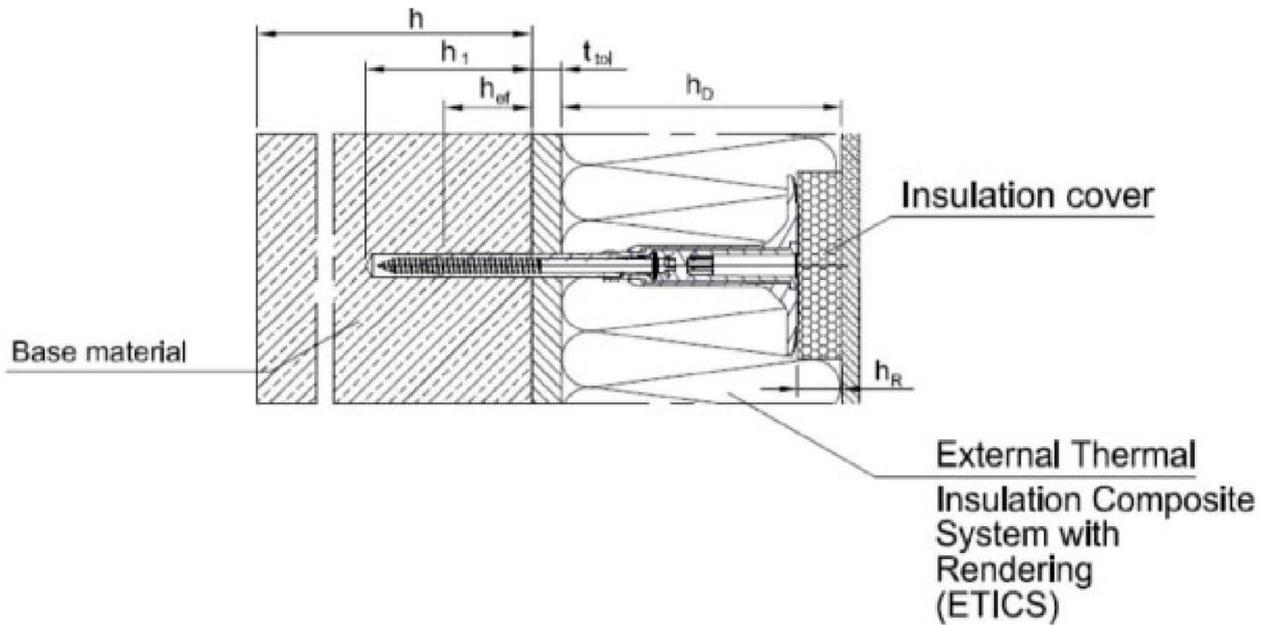
weber.therm SRD-5 and weber.therm SLD-5

Product description

Marking and dimensions of weber.therm SRD-5,
base material group: E; mounting flushed at the surface

Annex A 3

weber.therm SRD-5, countersunk into insulation



Intended use

- Anchorage of ETICS in concrete and masonry
- Anchorage of ETICS in autoclaved aerated concrete and lightweight aggregate concrete

- Legend:
- h_D = thickness of insulation material
 - h_{ef} = effective anchorage depth
 - h = thickness of member (wall)
 - h_1 = depth of drilled hole to deepest point
 - h_R = thickness of insulation cover
 - t_{tol} = thickness of equalizing layer or non-load-bearing coating

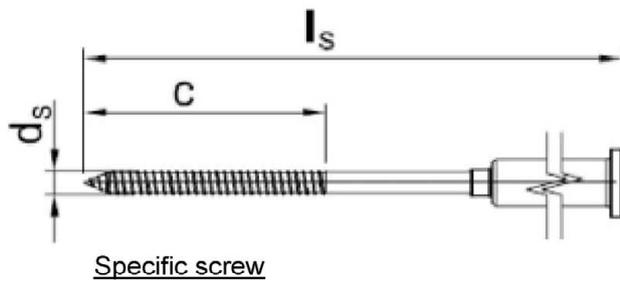
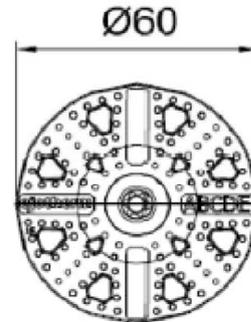
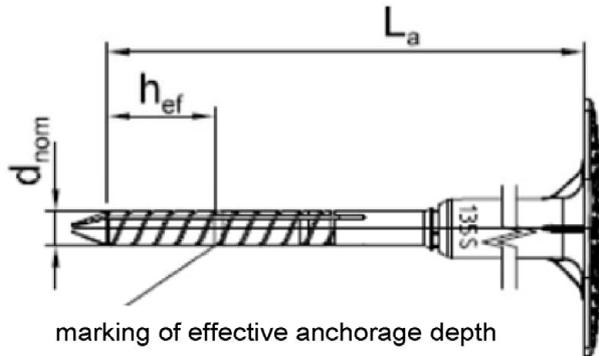
weber.therm SRD-5 and weber.therm SLD-5

Product description

Installed condition weber.therm SRD-5, countersunk into insulation

Annex A 4

weber.therm SRD-5, base material group: A, B, C, D / countersunk into insulation



Marking:
Anchor type (weber.therm S)
Length of anchor (e.g. 135)
Base material group (A, B, C, D, E)

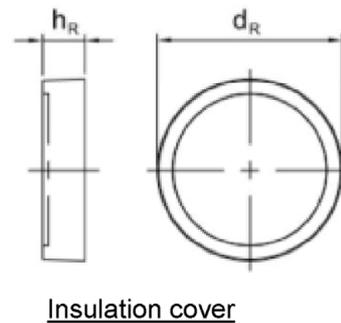
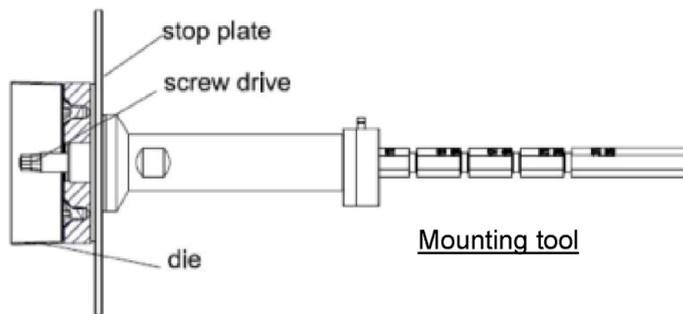


Tabelle A3: Dimensions

Anchor type	Anchor sleeve			Specific screw			insulation cover	
	d _{nom} [mm]	h _{ef} [mm]	min L _a max L _a [mm]	d _s [mm]	c [mm]	min l _s max l _s [mm]	h _R	d _R
weber.therm SRD-5	8	25	115 295	5,5	60/80	115 295	15	65

Determination of maximum thickness of insulation h_D [mm] for weber.therm SRD-5:

$$h_D = L_a - t_{tol} - h_{ef}$$

e.g. h_D = 135 - 10 - 25

$$h_{Dmax} = 100$$

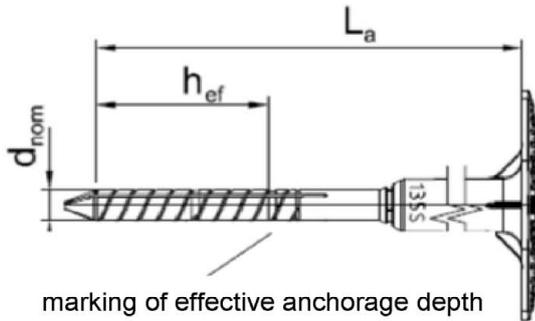
weber.therm SRD-5 and weber.therm SLD-5

Product description

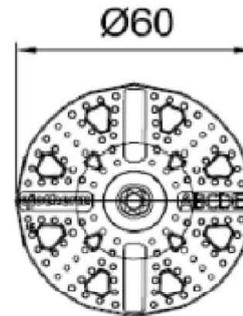
Marking and dimensions of weber.therm SRD-5, mounting tool, insulation cover
base material group: A, B, C, D; mounting countersunk into insulation

Annex A 5

weber.therm SRD-5, base material group: E / countersunk into insulation



marking of effective anchorage depth

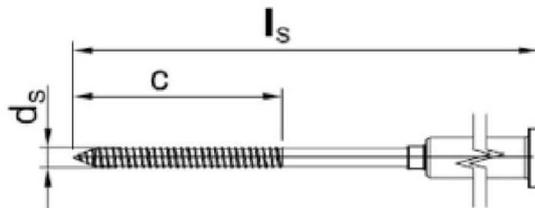


Marking:

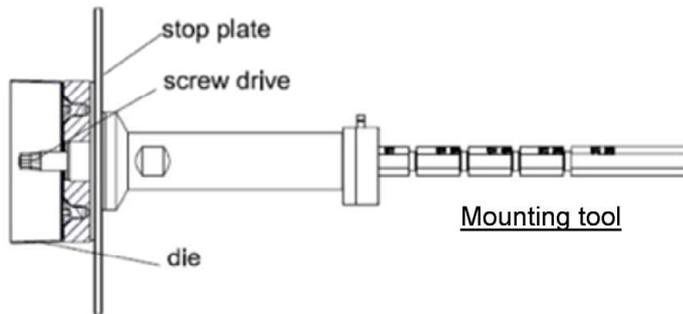
Anchor type (weber.therm S)

Length of anchor (e.g. 135)

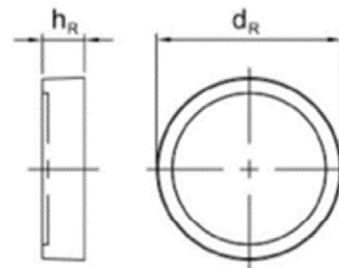
Base material group (A, B, C, D, E)



Specific screw



Mounting tool



Insulation cover

Tabelle A2: Dimensions

Anchor type	d _{nom} [mm]	Anchor sleeve		d _s [mm]	Specific screw		Insulation cover	
		h _{ef} [mm]	min L _a max L _a [mm]		c [mm]	min l _s max l _s [mm]	h _R	d _R
weber.therm SRD-5	8	45	115 295	5,5	60/80	115 295	15	65

Determination of maximum thickness of insulation h_D [mm] for weber.therm SRD-5:

$$h_D = L_a - t_{tol} - h_{ef}$$

e.g. h_D = 135 - 10 - 45

$$h_{Dmax} = 80$$

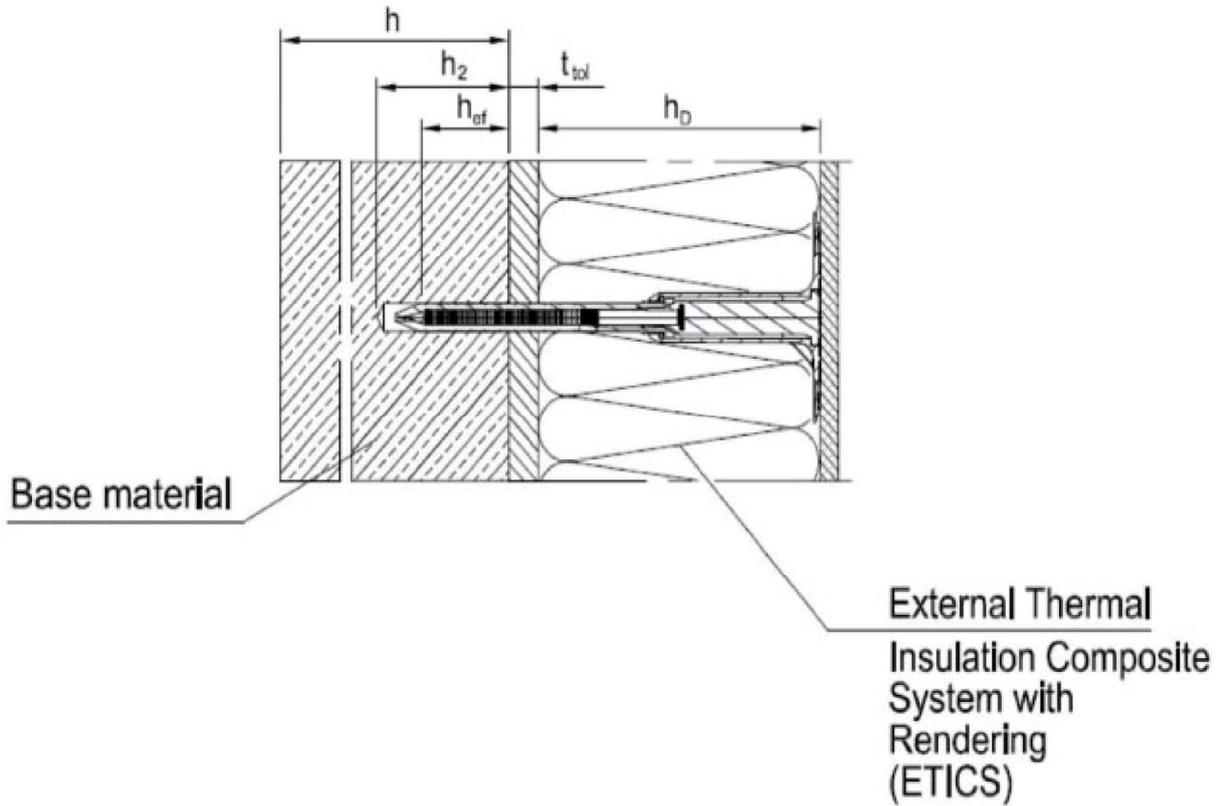
weber.therm SRD-5 and weber.therm SLD-5

Product description

Marking and dimensions of weber.therm SRD-5, mounting tool, insulation cover
base material group: E; countersunk into insulation

Annex A 6

weber.therm SLD-5, flushed at the surface



Intended use

- Anchorage of ETICS in concrete and masonry
- Anchorage of ETICS in autoclaved aerated concrete and lightweight aggregate concrete

- Legend:
- h_D = thickness of insulation material
 - h_{ef} = effective anchorage depth
 - h = thickness of member (wall)
 - h_2 = depth of drilled hole to deepest point
 - t_{tol} = thickness of equalizing layer or non-load-bearing coating

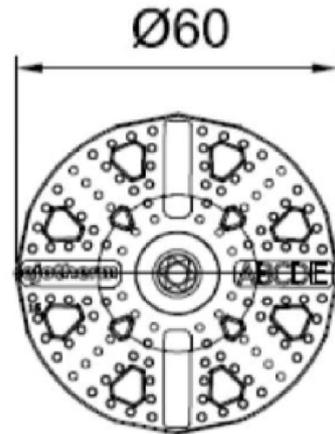
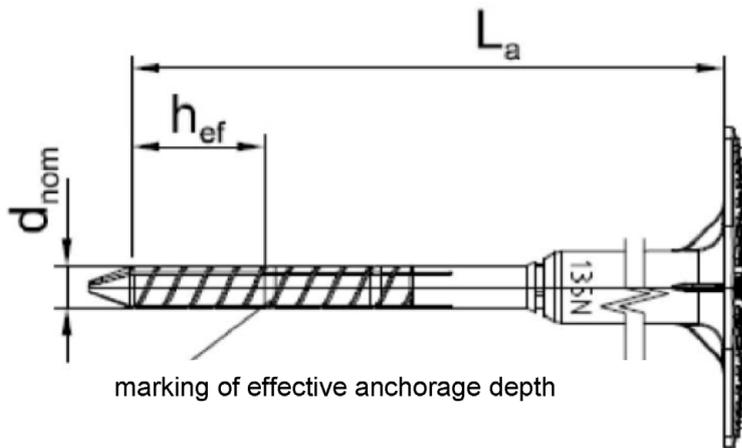
weber.therm SRD-5 and weber.therm SLD-5

Produkt description

Installed condition weber.therm SLD-5, flushed at the surface

Annex A 7

weber.therm SLD-5, base material group: A, B, C, D / mounting flushed at the surface



Marking:
Anchor type (weber.therm N)
Length of anchor (e.g. 135)
Base material group (A, B, C, D, E)

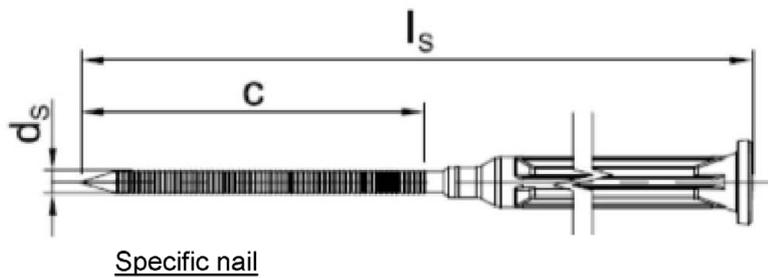


Tabelle A5: Dimensions

Anchor type	Anchor sleeve			Specific nail		
	d_{nom} [mm]	h_{ef} [mm]	min L_a max L_a [mm]	d_s [mm]	c [mm]	min l_s max l_s [mm]
weber.therm SLD-5	8	25	95 295	4,13	60	95 295

Determination of maximum thickness of insulation h_D [mm] for weber.therm SLD-5:

$$h_D = L_a - t_{tol} - h_{ef}$$

e.g. $h_D = 135 - 10 - 25$

$$h_{Dmax} = 100$$

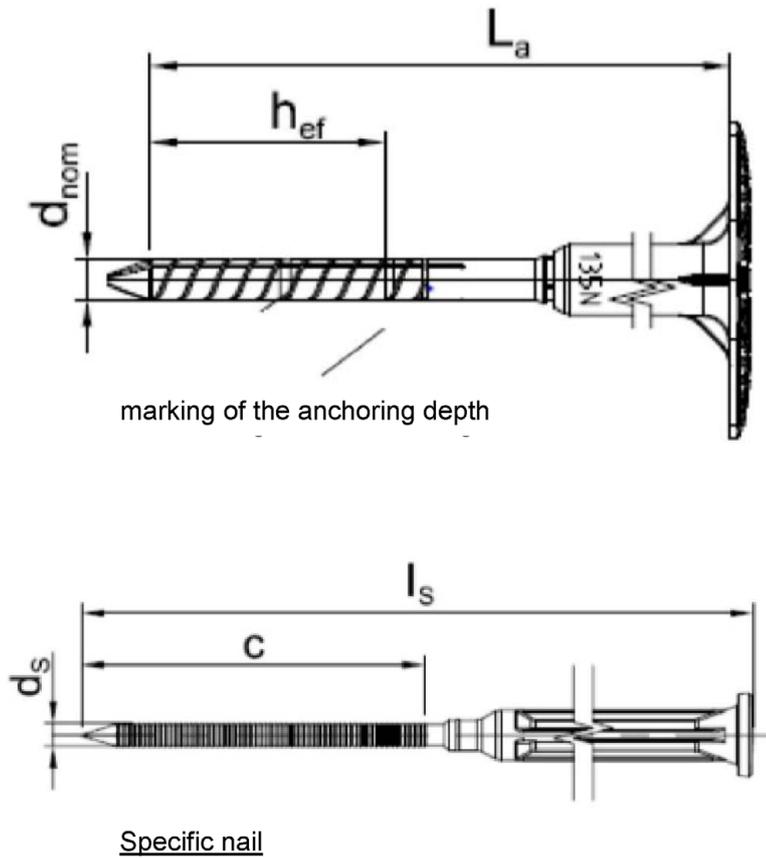
weber.therm SRD-5 and weber.therm SLD-5

Product description

Marking and dimensions of weber.therm SLD-5,
base material group: A, B, C, D; mounting flushed at the surface

Annex A 8

weber.therm SLD-5, base material group: E / mounting flushed at the surface



Marking:
Anchor type (weber.therm N)
Length of anchor (e.g. 135)
Base material group (A, B, C, D, E)

Tabelle A2: Dimensions

Anchor type	Anchor sleeve			Specific nail		
	d_{nom} [mm]	h_{ef} [mm]	min L_a max L_a [mm]	d_s [mm]	c [mm]	min l_s max l_s [mm]
weber.therm SLD-5	8	45	95 295	5,5	60	95 295

Determination of maximum thickness of insulation h_D [mm] for weber.therm SLD-5:

$$h_D = L_a - t_{tol} - h_{ef}$$

e.g. $h_D = 135 - 10 - 45$

$$h_{Dmax} = 80$$

weber.therm SRD-5 and weber.therm SLD-5

Product description

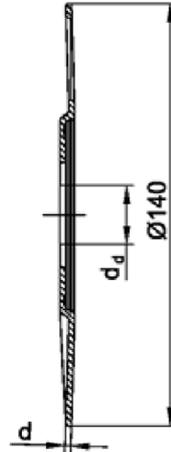
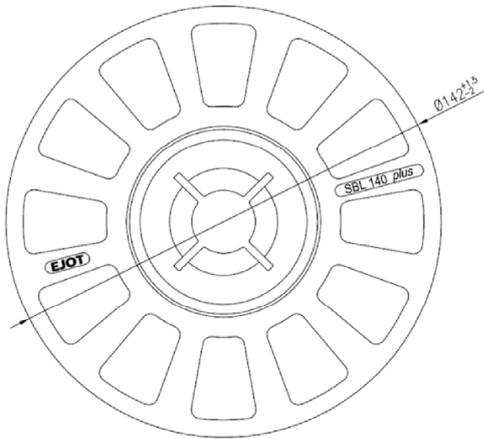
Marking and dimensions of weber.therm SLD-5,
base material group: E; mounting flushed at the surface

Annex A 9

Tabelle A7: Materials weber.therm SRD-5 und SLD-5	
Anchor sleeve	virgin Polyethylene, PE-HD colour: anthracite-grey
Anchor plate	virgin Polyethylene, PE-HD colour: yellow
Plastic moulding of the screw	virgin Polyamide, PA 6 GF 50 colour: anthracite-grey, black
Plastic moulding of the nail	virgin Polyamide, PA 6 GF 50 colour: anthracite-grey, black
Insulation cover	Polystyrene EPS 20
	Mineralwool HD
Specific screw for weber.therm SRD-5	Steel 5.8, electro galvanised $\geq 5 \mu\text{m}$ zinc, according to EN ISO 4042:2018, blue passivated
	Stainless steel, according to EN ISO 3506-1:2020 material-number 1.4401 oder 1.4571 material-number 1.4301 oder 1.4567
Specific nail for weber.therm SLD-5	Steel, electro galvanised $\geq 5 \mu\text{m}$ zinc, according to EN ISO 4042:2018 blue passivated, $f_{yk} \geq 670 \text{ N/mm}^2$
weber.therm SRD-5 and weber.therm SLD-5	
Product description Materials of weber.therm SRD-5 and weber.therm SLD-5	Annex A 10

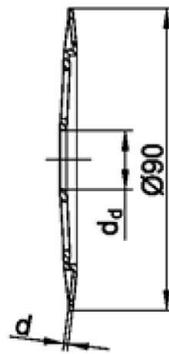
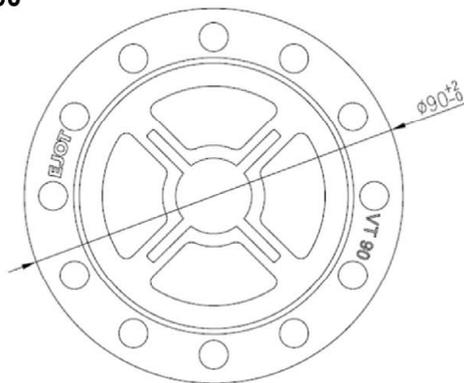
weber.therm SRD-5 and weber.therm SLD-5

SBL 140 plus



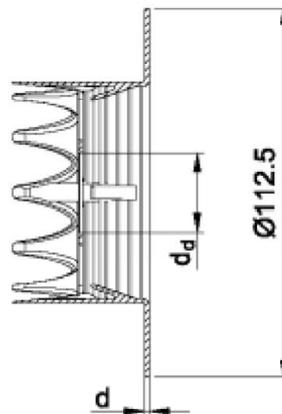
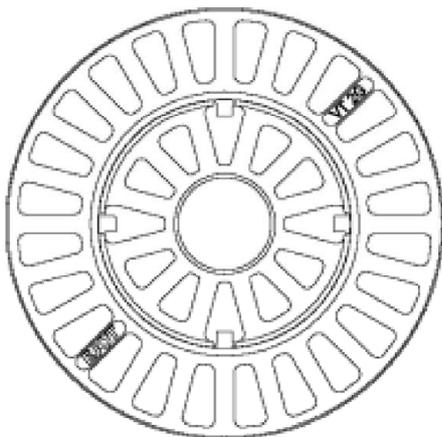
SBL 140 plus	
d _d [mm]	21,0
d [mm]	2,0

VT 90



VT 90	
d _d [mm]	18,5
d [mm]	1,2

VT2 G



VT 2G	
d _d [mm]	29,0
d [mm]	1,5

weber.therm SRD-5 and weber.therm SLD-5

Product description

Slip on plates for weber.therm SRD-5 and weber.therm SLD-5

Annex A 11

Specifications of intended use

Anchorage 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:

- Compacted normal weight concrete without fibres (base material group A) according to Annex C 1.
- Solid masonry (base material group B), according to Annex C 1.
- Hollow or perforated masonry (base material group C), according to Annex C 1.
- Prefabricated reinforced components of lightweight aggregate concrete (LAC) (base material group D), according to Annex C 1.
- Autoclaved aerated concrete (base material group E), according to Annex C 1.
- For other base materials of base material groups A, B, C, D or E the characteristic resistance of the anchor may be determined by job site tests in accordance with EOTA Technical Report TR 51 edition April 2018.

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 under the responsibility of an engineer experienced in accordance and masonry work with the partial safety factors $\gamma_m = 2,0$ and $\gamma_F = 1,5$ if there are no other regulations.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored. The position of the anchor is indicated on the design drawings.
- 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

weber.therm SRD-5 and weber.therm SLD-5

Intended use
Specifications

Annex B 1

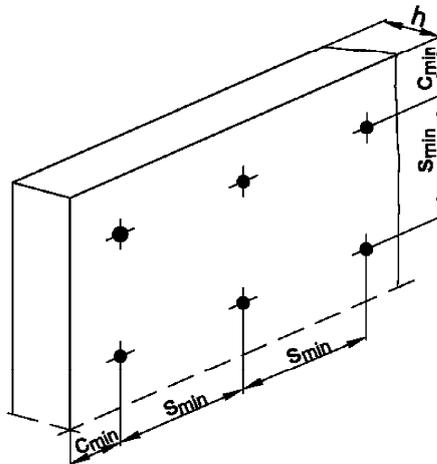
Tabelle B1: Installation parameters

Anchor type	weber.therm SLD-5		weber.therm SRD-5			
	A	B C D	E	A B C D	E	
Drill hole diameter	d_0 [mm] =		8	8	8	8
Cutting diameter of drill bit	d_{cut} [mm] ≤		8,45	8,45	8,45	8,45
Depth of drill hole to deepest point						
- deep mounting	h_1 [mm] ≥				50	70
- mounting on the surface	h_2 [mm] ≥		35	55	35	55
Effective anchorage depth	h_{ef} [mm] ≥		25	45	25	45

Tabelle B2: Anchor distances and dimensions of member

Anchor type	weber.therm SRD-5 / weber.therm SLD-5	
Minimum spacing	$s_{min} \geq$ [mm]	100
Minimum edge distance	$c_{min} \geq$ [mm]	100
Minimum thickness of member		
- deep mounting	$h \geq$ [mm]	100 40 (only skins of concrete)
- mounting on the surface	$h \geq$ [mm]	100 40 (only skins of concrete)

Scheme of distance and spacing

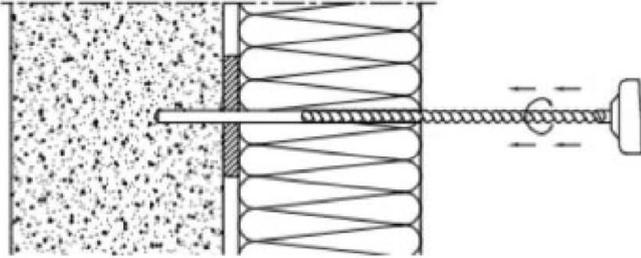


weber.therm SRD-5 and weber.therm SLD-5

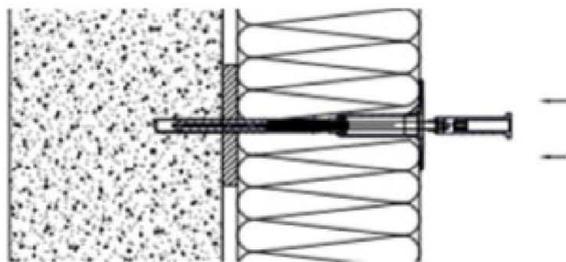
Intended use
Installation parameters
Edge distances and spacing

Annex B 2

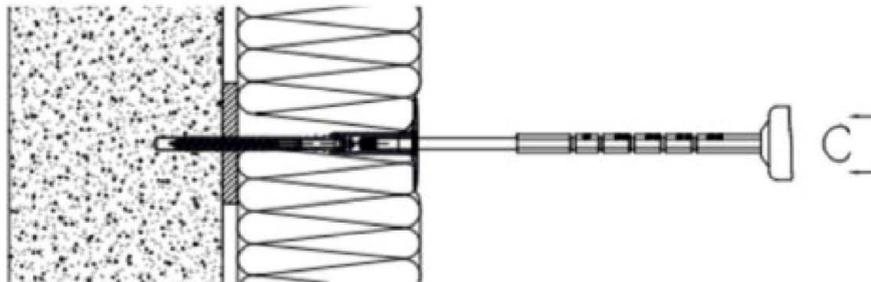
Installations instructions: weber.therm SRD-5 / flushed at the surface



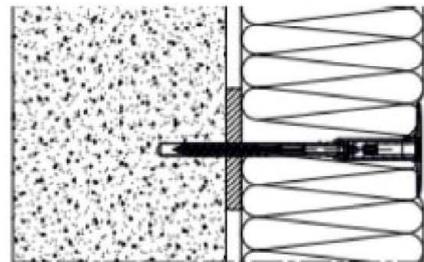
Drill the hole perpendicular to the substrate surface.
Clean the drill hole 3x.



Place the anchor into the drill hole. The bottom side of the plate must be flush with the ETICS.



Drill the specific screw into the anchor.



Installed condition of weber.therm SRD-5..

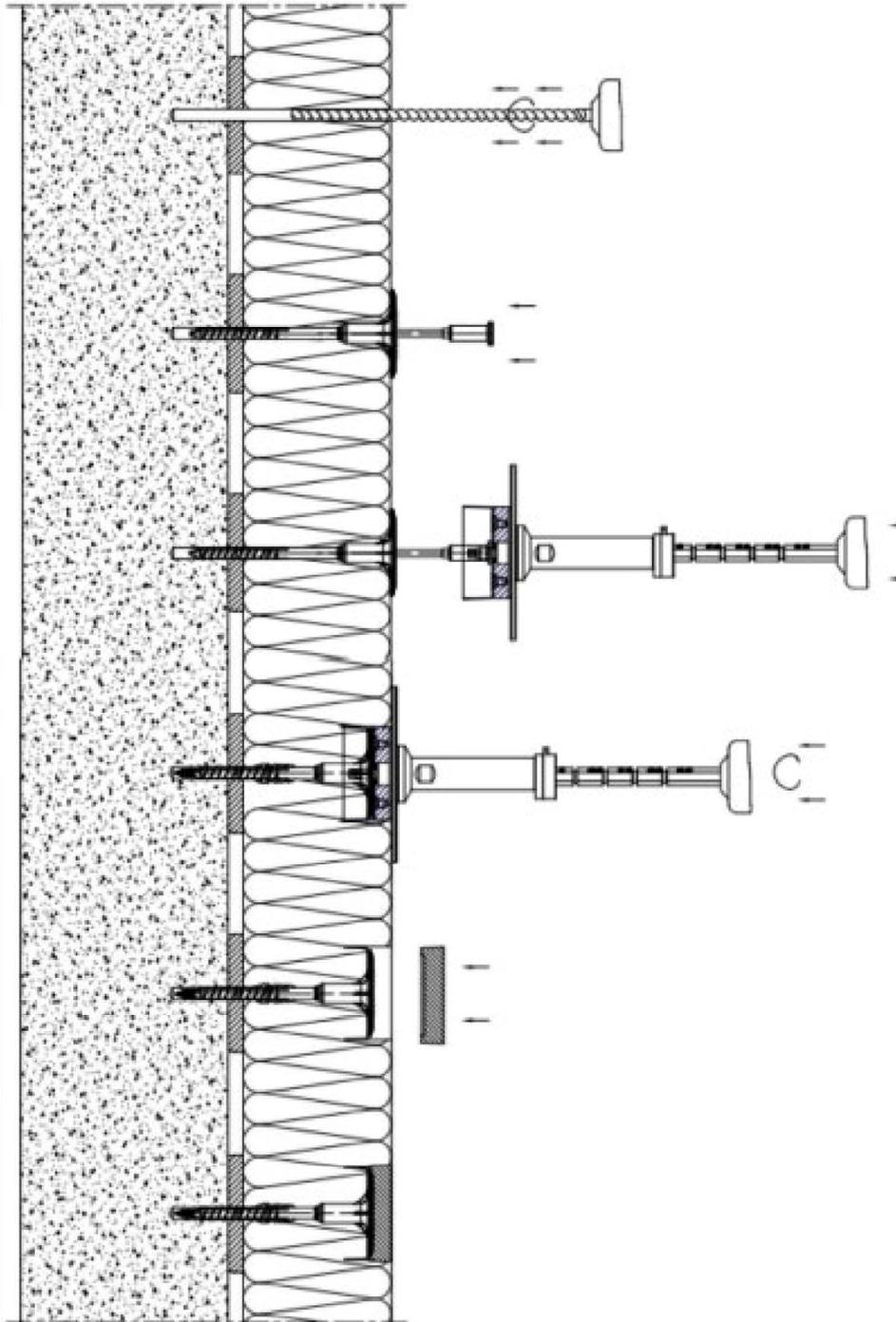
weber.therm SRD-5 and weber.therm SLD-5

Intended use

Installation instructions weber.therm SRD-5, flushed mounted at the surface

Annex B 3

Installation instructions: weber.therm SRD-5 / countersunk into insulation



Drill the hole perpendicular to the substrate surface.
Clean the drill hole 3x.

Place the anchor into the drill hole. The bottom side of the plate must be flush with the ETICS.

Put the mounting tool into the drive unit.

Drill the specific screw with the mounting tool into the anchor.

Put the insulation cover into the hole from the insulation

Installed condition of weber.therm SRD-5, countersunk with insulation cover.

Electronic copy of the ETA by DIBt: ETA-17/0077

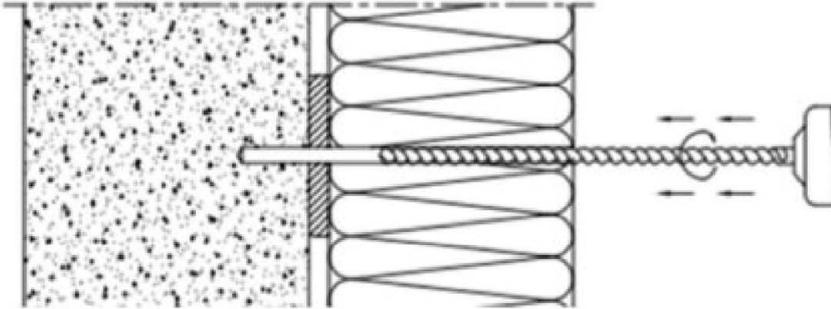
weber.therm SRD-5 and weber.therm SLD-5

Intended use

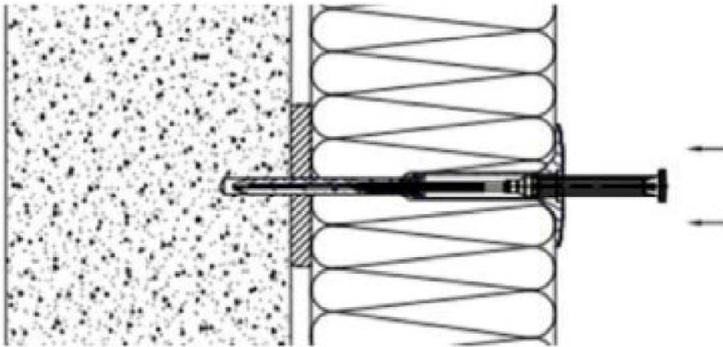
Installation instructions weber.therm SRD-5, countersunk into insulation

Annex B 4

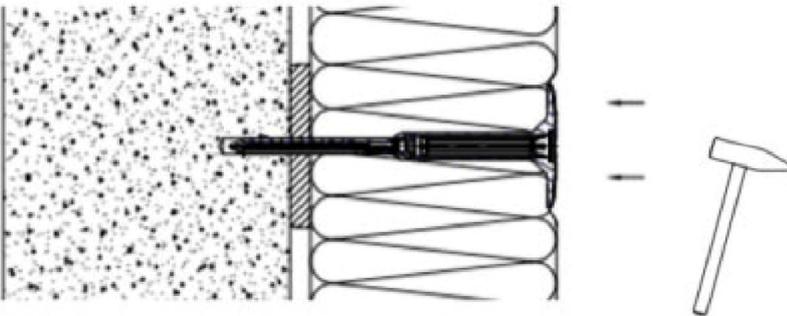
Installation instructions: weber.therm SLD-5 / mounting flushed at the surface



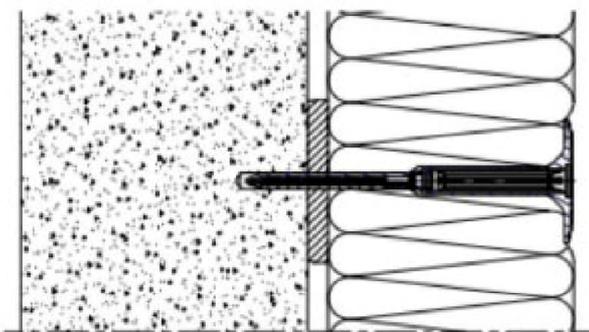
Drill the hole perpendicular to the substrate surface.
Clean the drill hole 3x.



Place the anchor into the drill hole. The bottom side of the plate must be flush with the ETICS.



Drive the specific nail with the hammer into the sleeve.



Installed condition
weber.therm SLD-5, flushed at the surface.

weber.therm SRD-5 and weber.therm SLD-5

Intended use

Installation instructions weber.therm SLD-5, flushed at the surface

Annex B 5

Table C1: Characteristic resistance to tension loads N_{RK} in concrete and masonry for a single anchor in kN						
Anchor type					weber. therm SLD-5	weber. therm SRD-5
Base materials	Bulk- density ρ [kg/dm ³]	Minimum com- pressive strength f_b [N/mm ²]	General remarks	Drill method	N_{RK} [kN]	N_{RK} [kN]
Concrete C 12/15 as per EN 206:2013+A1:2016			Compacted normal weight concrete without fibres	hammer	0,75	0,9
Concrete C20/25-C 50/60 EN 206:2013+A1:2016			Compacted normal weight concrete without fibres	hammer	1,2	1,5
Concrete C20/25-C50/60 Thin concrete members as per EN 206:2013+A1:2016			Compacted normal weight concrete without fibres Thickness of the thin skin: 100 mm > h ≥ 40 mm	hammer	1,2	1,5
Clay bricks, Mz as per EN 771-1:2011+A1:2015	≥ 1,8	36	Vertically perforation up to 15 % ⁴⁾	hammer	1,5	1,5
Sand-lime solid bricks, KS as per EN 771-2:2011+A1:2015	≥ 1,8	16	Vertically perforation up to 15 % ⁴⁾	hammer	1,5	1,5
Vertically perforated clay bricks, HLz as per EN 771-1:2011+A1:2015	≥ 1,4	16	Vertically perforation > 15 % and ≤ 50 % ⁴⁾	rotary	0,9 ¹⁾	1,5 ¹⁾
Sand-lime perforated bricks, KSL as per EN 771-2:2011+A1:2015	≥ 1,4	12	Vertically perforation > 15 % and ≤ 50 % ⁴⁾	rotary	0,9 ²⁾	1,5 ²⁾
Lightweight concrete hollow blocks, Hbl as per EN 771-3:2011+A1:2015	≥ 0,9	4	Vertically perforation > 15 % and ≤ 50 % ⁴⁾	rotary	0,6 ³⁾	1,2 ³⁾
lightweight aggregate concrete, LAC as per EN 1520:2011, EN 771-3:2011+A1:2015	≥ 1,2	8		hammer	0,6	0,75
Autoclaved aerated concrete as per EN 771-4:2011 +A1:2015	≥ 0,55	4		rotary	0,75	0,75
weber.therm SRD-5 and weber.therm SLD-5					Annex C 1	
Performances Characteristic resistance						

- 1) The value applies only for outer web thickness ≥ 14 mm; otherwise the characteristic resistance shall be determined by job site pull-out tests.
 2) The value applies only for outer web thickness ≥ 20 mm; otherwise the characteristic resistance shall be determined by job site pull-out tests.
 3) The value applies only for outer web thickness ≥ 30 mm; otherwise the characteristic resistance shall be determined by job site pull-out tests.
 4) cross section reduced by perforation vertically to the resting area

Table C2: Point thermal transmittance according EOTA Technical Report TR 025: 2016-05

Anchor type	Insulation thickness h_D [mm]	Point thermal transmittance χ [W/K]
weber.therm SLD-5	60 – 260	0,001
weber.therm SRD-5, countersunk	80 – 260	0,001
weber.therm SRD-5, flushed at the surface	80 – 260	0,002

Table C3: Plate stiffness according EOTA Technical Report TR 026:2016-05

Anchor type	Diameter of the anchor plate [mm]	Load resistance of the anchor plate [kN]	Plate stiffness [kN/mm]
weber.therm SRD-5 und SLD-5	60	2,1	0,7

Table C4: Displacements

Base materials	Bulk density ρ [kg/dm ³]	Minimum compressive strength f_b [N/mm ²]	Tension load N [kN] weber.therm SLD-5 / SRD-5	Displacements $\Delta \delta_N$ [mm]	
				weber.therm SLD-5	weber.therm SRD-5
Concrete C20/255 – C50/60 EN 206:2013+A1:2016			0,4 / 0,5	0,4	0,4
Clay bricks, Mz EN 771-1:2011+A1:2015	$\geq 1,8$	36	0,5 / 0,5	0,3	0,3
Sand-lime solid bricks, KS EN 771-2:2011+A1:2015	$\geq 1,8$	16	0,5	0,4	0,4
Vertically perforated clay bricks, Hlz, EN 771-1:2011+A1:2015	$\geq 1,4$	16	0,3 / 0,5	0,2	0,4
Vertically perforated clay bricks, KSL, EN 771-2:2011+A1:2015	$\geq 1,4$	12	0,3 / 0,5	0,3	0,3
Lightweight concrete hollow blocks, Hbl EN 771-3:2011+A1:2015	$\geq 0,9$	4	0,2 / 0,4	0,2	0,2
Lightweight aggregate concrete LAC, EN 1520:2011 / EN 771-3:2011+A1:2015	$\geq 1,2$	8	0,2 / 0,25	0,2	0,2
Autoclaves aerated concrete, EN 771-4:2011+A1:2015	$\geq 0,55$	4	0,25 / 0,25	0,3	0,3

weber.therm SRD-5 and weber.therm SLD-5

Performances
Point thermal transmittance, plate stiffness and displacements

Annex C 2