Deutsches Institut für Bautechnik

Public-law institution jointly founded by the federal states and the Federation

European Technical Assessment Body for construction products

Member of EOTA
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European Technical Assessment ETA-25/0314 of 14 April 2025

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	maxit therm SCR speedy
Product family to which the construction product belongs	Screwed-in plastic anchor for fixing of external thermal insulation composite systems with rendering in concrete and masonry
Manufacturer	Franken Maxit s.r.o. Karlovarská 147/22 350 02 Cheb - Hradiste Czech Republic TSCHECHISCHE REPUBLIK
Manufacturing plant	Manufacturing plant 1
This European Technical Assessment contains	12 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

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Specific Part

1 Technical description of the product

The screwed-in anchor maxit therm SCR speedy consist of an anchor sleeve and a screw plate, both made of polyamide (virgin material) and an accompanying specific screw of galvanised steel.

The product description is 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 verification 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 C1 See Annex B2
Displacements	See Annex C2
Plate stiffness	No performance assessed

3.2 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Point thermal transmittance	See Annex C2

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 EAD

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

The following standards and documents are referred to in this European Technical Assessment:

-	EOTA Technical Report TR 025, Edition May 2016	Point Thermal Transmittance of Plastic Anchors for ETICS
-	EOTA Technical Report TR 051, Edition April 2018	Job site tests of plastic anchors and screws
-	EN 206:2013+A2:2021	Concrete - Specification, performance, production and conformity
-	EN 771-1:2011+A1:2015	Specification for masonry units - Part 1: Clay masonry units
-	EN 771-2:2011+A1:2015	Specification for masonry units - Part 2: Calcium silicate masonry units
-	EN 771-3:2011+A1:2015	Specification for masonry units - Part 3: Aggregate concrete masonry units (Dense and lightweight aggregates)
-	EN 771-4:2011+A1:2015	Specification for masonry units - Part 4: Autoclaved aerated concrete masonry units
-	EN 1520:2011	Prefabricated reinforced components of lightweight aggregate concrete with open structure
-	EN ISO 4042:2022	Fasteners - Electroplated coating systems

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Dipl.-Ing. Beatrix Wittstock
Head of Section

beglaubigt:
Aksünger

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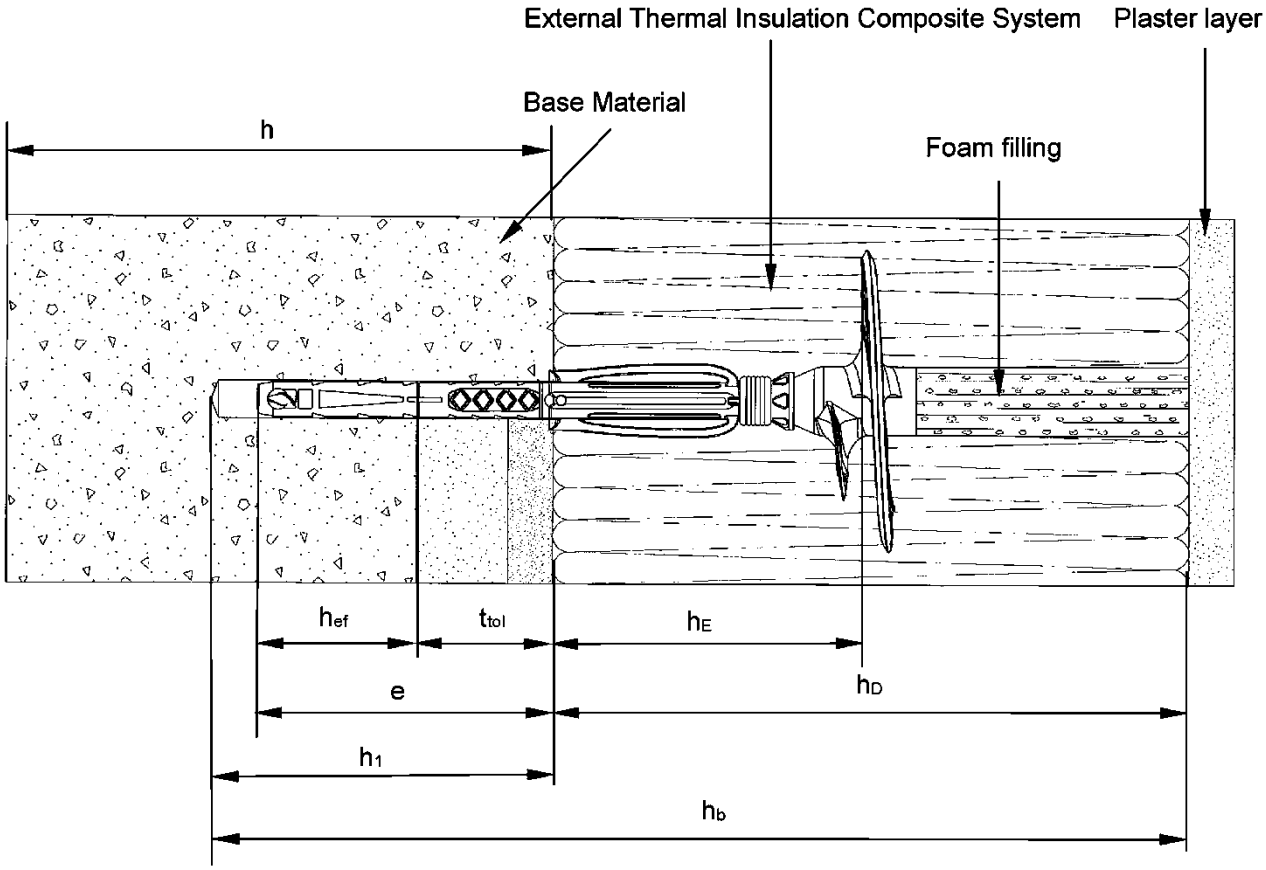
maxit therm SCR speedy



Legend

h_1	=	Depth of drilled hole to deepest point in the base material
h	=	Thickness of base material (wall)
h_D	=	Thickness of insulation material
t_{tol}	=	Thickness of equalising layer and / or non-load bearing coating
h_E	=	Embedment depth
h_b	=	Total bore hole depth
h_{ef}	=	Effective anchor embedment depth in the base material
e	=	Effective anchor embedment depth in the base material including thickness of equalising layer and / or non-load bearing coating

Figure not to scale

maxit therm SCR speedy	**Annex A1**
Product description Installed anchor	

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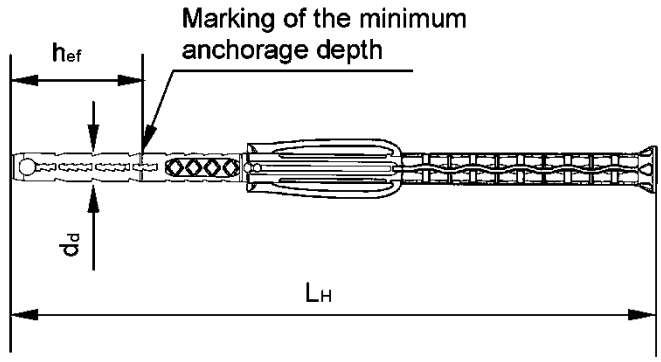
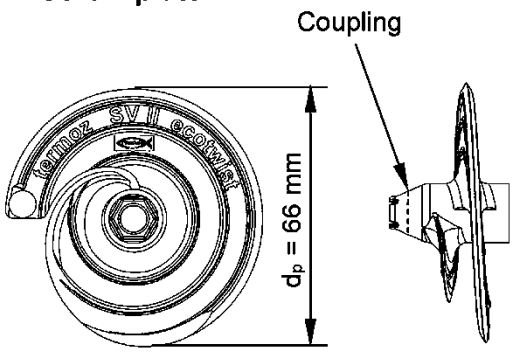
maxit therm SCR speedy

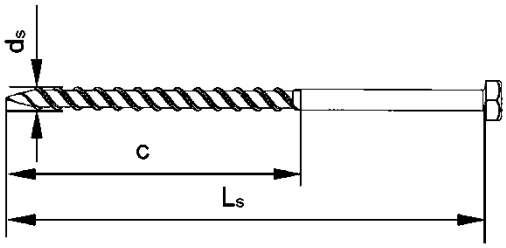
Anchor sleeve



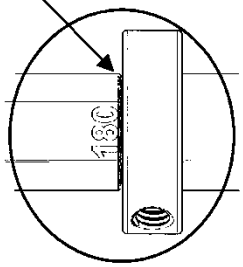
Screw plate



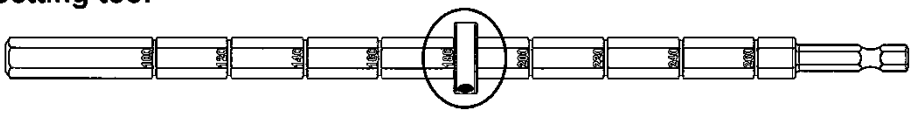
Special screw



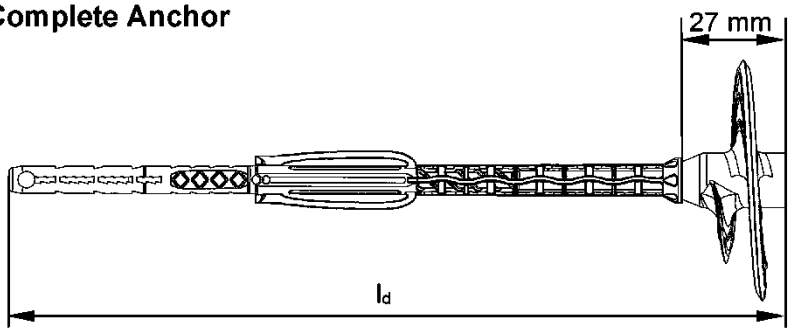
Adjustment of the ring depends on the insulation material thickness, e.g. h_D = 180 mm
→ adjust value 180 at the setting tool



Setting tool



Complete Anchor



Figures not to scale

maxit therm SCR speedy	**Annex A2**
Product description Anchor type and single parts	

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Table A3.1: Dimensions

Anchor type	Anchor sleeve					Special screw		
maxit therm	d_d	h_{ef} [1)]	h_E [1)]	l_d	L_H	d_s	L_s	c
	[mm]							
SCR 10 speedy t_{tol} 0-10 mm	8	35	70	162	135	6	100	74
SCR 30 speedy t_{tol} 0-30 mm				202	175		120	
SCR 60 speedy t_{tol} 30-60 mm				232	205		150	

[1)] see Annex A 1.

Table A3.2: Marking on the screw plate

Anchor type	Marking
Name	termoz SV II ecotwist
Works symbol	

Table A3.2: Marking on the anchor sleeve

Anchor type	Marking
maxit therm SCR 10 speedy t_{tol} 0-10 mm	t_{tol} 0 - 10
maxit therm SCR 30 speedy t_{tol} 0-30 mm	t_{tol} 0 - 30
maxit therm SCR 60 speedy t_{tol} 30-60 mm	t_{tol} 30 - 60

Table A3.2: Material

Designation	Material
Anchor sleeve	PA6, colour: grey
Screw plate	PA6 GF, colour: blue
Special screw	Galvanised steel gvz with Zn5/Ag or Zn5/An in accordance with EN ISO 4042
Insulation plug	Polystyrene, mineral wool

maxit therm SCR speedy	**Annex A3**
Product description Dimensions anchor types, marking on the screw plate/anchor sleeve Material	

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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 external thermal insulation composite system.

Base materials:

- Normal weight concrete without fibres ≥ C12/15 (base material group "A") as per EN 206, see Annex C 1.
- Solid masonry (base material group "B") as per EN 771-1, EN 771-2 or EN 771-3, see Annex C 1.
- Hollow or perforated masonry (base material group "C") as per EN 771-1, EN 771-2 or EN 771-3, see Annex C 1.
- Lightweight aggregate concrete (base material group "D") as per EN 1520, see Annex C 1.
- Autoclaved aerated concrete (base material group "E") as per EN 771-4, see Annex C 1.
- For other base materials of the base material groups "A", "B", "C", "D" and "E" the characteristic resistance of the anchor may be determined by job site tests in accordance with EOTA Technical Report TR 051.

Temperature Range:

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

Design:

- The anchorages are designed under the responsibility of an engineer experienced in anchorages and masonry work with the partial safety factors for material related resistances γ_M = 2,0 and for action loads γ_F = 1,5 in absence of other national regulations.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored. The position of the anchors is indicated on the design drawings.
- Fasteners are only to be used for multiple fixings of external thermal insulation composite systems.

Installation:

- Drilling method according to Annex C 1.
- Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters on 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.

maxit therm SCR speedy	**Annex B1**
Intended use Specifications	

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Table B2.1: Installation parameters in all regulated base material groups

Anchor type		maxit therm SCR speedy
Drill hole diameter	d_0 = [mm]	8
Cutting diameter of drill bit	d_{cut} ≤ [mm]	8,45
Depth of drill hole to deepest point		
maxit therm SCR 10 speedy t_{tol} 0-10 mm	h_1 ≥ [mm]	55
maxit therm SCR 30 speedy t_{tol} 0-30 mm	h_1 ≥ [mm]	75
maxit therm SCR 60 speedy t_{tol} 30-60 mm	h_1 ≥ [mm]	105
Total bore hole depth at		
maxit therm SCR 10 speedy t_{tol} 0-10 mm	h_b ≥ [mm]	h_D + 55
maxit therm SCR 30 speedy t_{tol} 0-30 mm	h_b ≥ [mm]	h_D + 75
maxit therm SCR 60 speedy t_{tol} 30-60 mm	h_b ≥ [mm]	h_D + 105
Overall plastic anchor embedment depth in the base material including equalising layers / coatings (h_{ef} + $t_{tol,max}$)[1)]		
maxit therm SCR 10 speedy t_{tol} 0-10 mm	e = [mm]	45
maxit therm SCR 30 speedy t_{tol} 0-30 mm	e = [mm]	65
maxit therm SCR 60 speedy t_{tol} 30-60 mm	e = [mm]	95

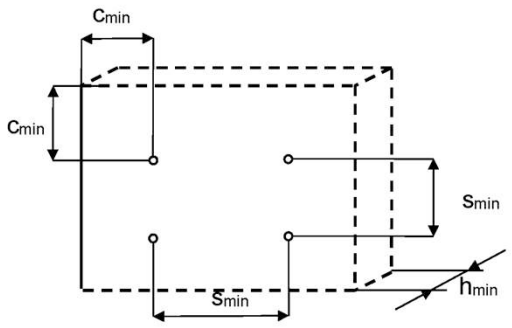
[1)] see Annex A 1.

Table B2.2: Minimum thickness of member, edge distances and spacing in all regulated base material groups

Anchor type		maxit therm SCR speedy
Minimum thickness of member	h_{min} = [mm]	100[1)]
Minimum spacing	s_{min} = [mm]	100
Minimum edge distance	c_{min} = [mm]	100

[1)] For weather resistant external wall panels: h_{min}=40 mm.

Scheme of edge distances and spacing
for base material group “A”, concrete, group “B” solid bricks, group “C” hollow or perforated masonry, group “d” lightweight aggregate concrete, group “E” autoclaved aerated concrete



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maxit therm SCR speedy	**Annex B2**
Intended use Installation Parameters Minimum thickness of member, edge distances and spacing	

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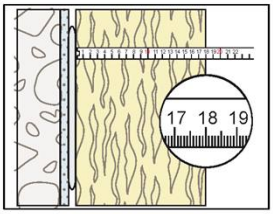
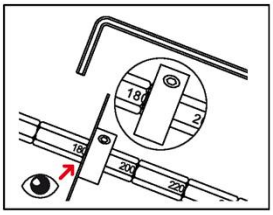
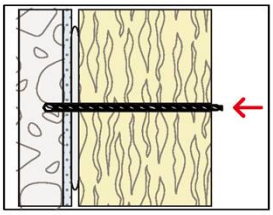
Installation instructions



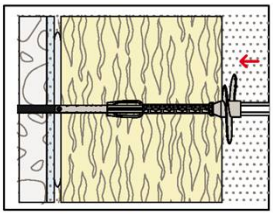
1. Measure insulation thickness h_D (example: 18 cm = 180 mm).



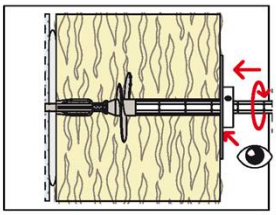
2. Adjust the setting tool ring corresponding to the insulation material thickness h_D in mm. Number is legible.
   Additionally to the setting tool ring, a thin plastic plate (maximum 1 mm thickness) can be used as a stop unit for easier mounting.



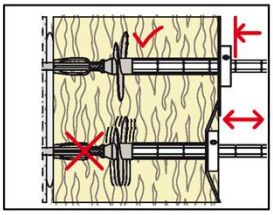
3. Drill bore hole. Total drill hole depth must be at
   t_{tol} 0-10 mm → h_D + 55 mm
   t_{tol} 0-30 mm → h_D + 75 mm
   t_{tol} 30-60 mm h_D + 105 mm.
   Note: bore holes in Hlz and autoclaved aerated concrete only by rotary drilling.



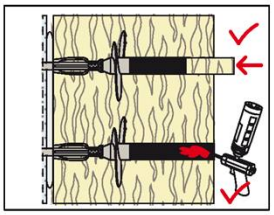
4. Press the anchor with the screw plate tight against the surface of the insulation material, then start screwing-in the anchor. Setting is finished when the surface of the ring is flush with the surface of the insulation material.



5. After reaching the setting depth, press the adjustment tool tight against the installed anchor.
   If there is no axial movement of the anchor, remove the setting tool. The setting process is finished.



6. In case of axial movement, a new anchor has to be set in a new drill hole.



7. The hole in the insulation material must be filled with a suitable foam (illustrated in Annex A 1) or must be closed with an appropriate insulation plug.

maxit therm SCR speedy	**Annex B3**
Intended use Installation instructions	

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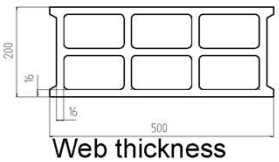
Table C1.1:Characteristic resistance to tension load N_{Rk} for single anchor maxit therm SCR speedy

Base material	Group	Bulk density ρ [kg/dm³]	Mean compressive strength / minimum compressive strength single brick as per EN 771[4] [N/mm²]	Remarks	Drilling method[1]	Characteristic resistance to tension load N_{Rk} [kN]
Weather resistant skin of external wall panels, concrete C20/25 - C50/60 as per EN 206	A	-	-	Thickness of concrete panels 40 mm ≤ h < 100 mm.	H	**0,90**
					R	**1,50**
Concrete C12/15 - C50/60 as per EN 206	A	-	-	-	H	**1,50**
Solid clay bricks, Mz as per EN 771-1	B[2]	≥ 1,8	15/12	-	H	**1,20**
Sand-lime solid bricks, KS as per EN 771-2	B[2]	≥ 2,0	15/12	-	H	**1,20**
			25/20			**1,50**
Solid concrete block, Vbn as per EN 771-3	B[2]	≥ 2,0	15/12	-	H	**1,20**
			25/20			**1,50**
Lightweight concrete solid blocks, Vbl as per EN 771-3	B[2]	≥ 1,4	10/8	-	H	**0,60**
Vertically perforated clay bricks, Hlz as per EN 771-1	C[3]	≥ 1,0	15/12	Exterior web thickness ≥ 12 mm.	R	**0,75**
Vertically perforated sand-lime bricks, KSL as per EN 771-2	C[3]	≥ 1,4	15/12	Exterior web thickness ≥ 23 mm.	H	**0,75**
			25/20			**1,20**
Lightweight concrete hollow blocks, Hbl as per EN 771-3	C[3]	≥ 1,2	5/4	Exterior web thickness ≥ 38 mm.	H	**0,60**
			7,5/6			**0,75**
			10/8			**0,90**
			12,5/10			**1,20**
French lightweight concrete hollow block, Hbl as per EN 771-3 "Sepa Parpaing" 500 x 200 x 190 mm	C[3]	≥ 0,9	5/4	 Web thickness ≥ 16 mm.	H	**0,50**
Lightweight aggregate concrete, LAC as per EN 1520	D[3]	≥ 0,9	7,5/6	Minimum thickness of solid brick h = 100 mm or exterior web thickness ≥ 50 mm.	H	**0,75**
Autoclaved aerated concrete, AAC as per EN 771-4	E	≥ 0,5	5/4	-	R	**0,40**

[1] H = Hammer drilling, R = Rotary drilling.
[2] Vertically perforation ≤ 15%; cross section reduced by perforation vertically to the resting area.
[3] Vertically perforation > 15 % and ≤ 50 %, cross section reduced by perforation vertically to the resting area.
[4] The compressive strength of the single brick must not be less than 80% of the mean compressive strength.

maxit therm SCR speedy	**Annex C1**
Performances Characteristic resistance to tension load for single anchor	

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Table C2.1: Point thermal transmittance according to EOTA Technical Report TR 025

Anchor type	Thickness of insulation material h_D [mm]	Point thermal transmittance χ [W/K]
maxit therm SCR 10 speedy EPS-plug and air void t_{tol} = 0-10 mm	100 - 240	0,001
	> 240	0
maxit therm SCR 10 speedy PU-foam filled hole t_{tol} = 0-10 mm	100 - 150	0,001
	> 150	0
maxit therm SCR 30 speedy EPS-plug and air void t_{tol} = 0-30 mm	100 - 240	0,001
	> 240	0
maxit therm SCR 30 speedy PU-foam filled hole t_{tol} = 0-30 mm	100 - 150	0,001
	> 150	0
maxit therm SCR 60 speedy EPS-plug and air void t_{tol} = 30-60 mm	100	0,002
	120 - 240	0,001
	> 240	0
maxit therm SCR 60 speedy PU-foam filled hole t_{tol} = 30-60 mm	100	0,002
	120 - 150	0,001
	> 150	0

Table C2.2: Displacements for maxit therm SCR speedy

Base material		Mean compressive strength / minimum compressive strength single brick as per EN 771[1] [N/mm²]	Tension load N [kN]	Displacements $\Delta\delta_N$ [mm]
Concrete, thin members C20/25 - C50/60 as per EN 206	Hammer drilling	-	0,30	< 0,30
	Rotary drilling	-	0,50	< 0,30
Concrete, C16/20 - C50/60 as per EN 206		-	0,50	< 0,30
Clay bricks, Mz as per EN 771-1		15/12	0,40	< 0,30
Sand-lime solid bricks, KS as per EN 771-2		15/12	0,40	< 0,30
		25/20	0,50	
Solid concrete block, Vbn as per EN 771-3		15/12	0,40	< 0,30
		25/20	0,50	
Lightweight concrete solid blocks, Vbl as per EN 771-3		10/8	0,20	< 0,20
Vertically perforated clay bricks, Hlz as per EN 771-1		15/12	0,25	< 0,30
Vertically perforated sand-lime bricks, KSL as per EN 771-2		15/12	0,25	< 0,20
		25/20	0,40	
Lightweight concrete hollow blocks, Hbl as per EN 771-3		5/4	0,20	< 0,30
		7,5/6	0,25	
		10/8	0,30	
		12/10	0,40	
Lightweight concrete hollow blocks, Hbl as per EN 771-3		5/4	0,15	< 0,40
Lightweight aggregate concrete, LAC as per EN 1520		7,5/6	0,25	< 0,20
Autoclaved aerated concrete blocks, AAC as per EN 771-4		5/4	0,15	< 0,10

[1] The compressive strength of the single brick must not be less than 80% of the mean compressive strength.

maxit therm SCR speedy	**Annex C2**
Performances Point thermal transmittance Displacements	