



INSTYTUT TECHNIKI BUDOWLANEJ



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European Technical Assessment

**ETA-11/0232
of 31/03/2026**



General Part

Technical Assessment Body issuing the European Technical Assessment

Instytut Techniki Budowlanej

Trade name of the construction product

WK THERM ϕ 8

Product family to which the construction product belongs

Nailed-in plastic anchors for fixing of external thermal insulation composite systems with rendering

Manufacturer

Wkręt-met Sp. z o.o.
ul. Wincentego Witosa 170/176
Kuźnica Kiedrzyńska
PL 42-233 Mykanów, Poland

Manufacturing plants

Plant No. 1 and Plant No. 2

This European Technical Assessment contains

16 pages including 3 Annexes which form an integral part of this Assessment

This European Technical Assessment is issued in accordance with Article 95(4) of Regulation (EU) 2024/3110, on the basis of

European Assessment Document (EAD)
330196-01-0604 "Plastic anchors made of virgin or non-virgin material for fixing of external thermal insulation composite systems with rendering"

This version replaces

ETA-11/0232 issued on 29/05/2023

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full. However, partial reproduction may only be made with the written consent of the issuing Technical Assessment Body. Any partial reproduction has to be identified as such.

Specific Part

1 Technical description of the product

The WK THERM ϕ 8 nailed-in plastic anchor consists of an anchor sleeve with a plate made of polyethylene (virgin material) and an accompanying specific steel nail as an expansion pin made of the galvanized steel with a head covered by polyamide or polypropylene as a plastic coat.

The WK THERM ϕ 8 anchors may in addition be combined with anchor plates TDX-90, TDX-P-90, TDX-140 or TDX-P-140.

The description of the product is given in Annex A.

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

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

The provisions made in this European Technical Assessment are based on an assumed working life of the anchor of 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer or Technical Assessment Body, 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 Performance of the product

3.1.1 Safety in use (BWR 4)

Essential characteristic	Performance
Characteristic resistance under tension load	Annex C1
Edge distances and spacings	Annex B2
Plate stiffness	Annex C2
Displacements	Annex C3

3.1.2 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Point thermal transmittance	Annex C2

3.2 Methods used for the assessment

The assessment has been made in accordance with EAD 330196-01-0604.

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

According to Decision 97/463/EC of the European Commission the system 2+ of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) applies.

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

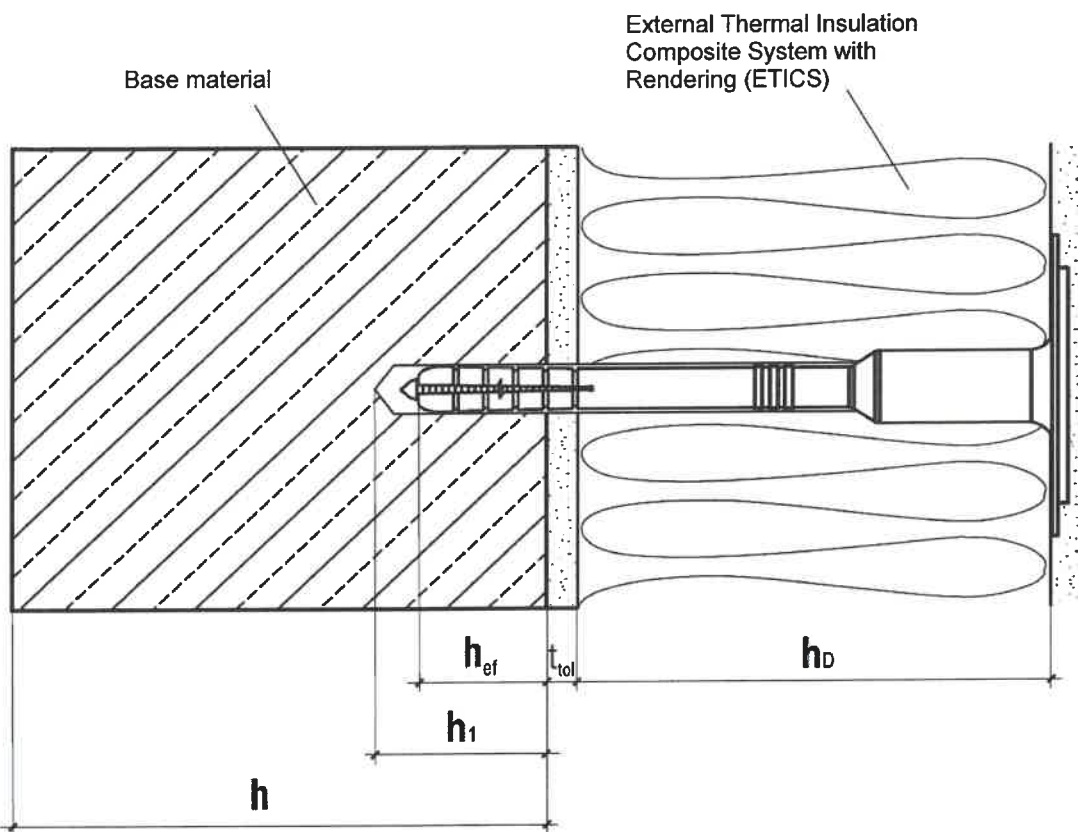
Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited in Instytut Techniki Budowlanej.

For type testing the results of the tests performed as part of the assessment for the European Technical Assessment shall be used unless there are changes in the production line or plant. In such cases the necessary type testing has to be agreed between Instytut Techniki Budowlanej and the notified body.

Issued in Warsaw on 31/03/2026 by Instytut Techniki Budowlanej

A handwritten signature in black ink, appearing to read 'Anna Panek', is positioned above the printed name.

Anna Panek, MSc
Deputy Director of ITB



Intended Use:

Fixing of external thermal insulation composite systems in concrete and masonry

Legend:

h_{ef} = effective anchorage depth

h_1 = depth of drill hole in base material

h = thickness of base material

h_D = thickness of insulation material

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

WK THERM ϕ 8

Product description
Installation conditions

Annex A1
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Marking of the anchorage depth

Marking:

Identifying mark: (Wkret-Met)

Sleeve type: (WK THERM)

Length of anchor: (e.g. 215)

Nominal diameter: d_{nom} ($\phi 8$)

Anchor designation	Anchor sleeve				Expansion pin	
	$d_{nom} \pm 0,1$	$L_a \pm 2$	$D_{plate} \pm 1,5$	h_{ef}	$d_m \pm 0,1$	$L_{nm} \pm 2$
WK THERM $\phi 8 \times 95$	8	95	60	25	4,35	105
WK THERM $\phi 8 \times 115$	8	115	60	25	4,35	125
WK THERM $\phi 8 \times 135$	8	135	60	25	4,35	145
WK THERM $\phi 8 \times 155$	8	155	60	25	4,35	165
WK THERM $\phi 8 \times 175$	8	175	60	25	4,35	185
WK THERM $\phi 8 \times 195$	8	195	60	25	4,35	205
WK THERM $\phi 8 \times 215$	8	215	60	25	4,35	225
WK THERM $\phi 8 \times 235$	8	235	60	25	4,35	245
WK THERM $\phi 8 \times 255$	8	255	60	25	4,35	265
WK THERM $\phi 8 \times 275$	8	275	60	25	4,35	285
WK THERM $\phi 8 \times 295$	8	295	60	25	4,35	305
WK THERM $\phi 8 \times 315$	8	315	60	25	4,35	325
WK THERM $\phi 8 \times 335$	8	335	60	25	4,35	345
WK THERM $\phi 8 \times 355$	8	355	60	25	4,35	365

Determination of maximum thickness of insulation material: $h_d = L_a - t_{tol} - h_{ef}$

WK THERM $\phi 8$

Product description

Marking of the anchor sleeve and expansion element of the WK THERM $\phi 8$ anchors

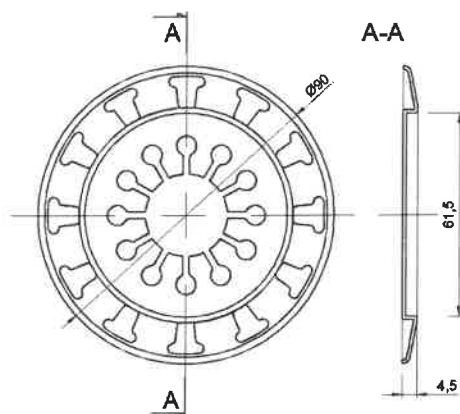
Annex A2
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Table A2: Materials

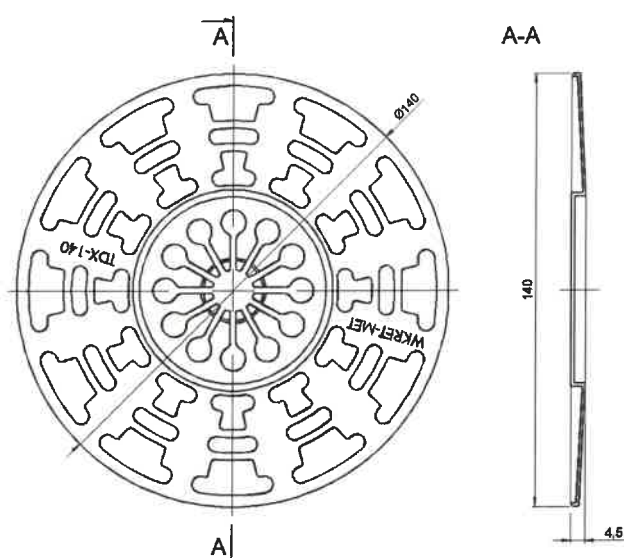
Designation	Material
Anchor sleeve	Virgin plastic: polyethylene, natural or grey
Expansion pin	Carbon steel ($f_{y,k} = 235 \text{ MPa}$, $f_{u,k} = 360 \text{ MPa}$) with zinc coat $\geq 5 \text{ }\mu\text{m}$, with head covered by polyamide PA6 or polypropylene PP, natural or grey

WK THERM ϕ 8
Product description
Materials

Annex A3
of European
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TDX-90 and TDX-P-90



TDX-140 and TDX-P-140

Table A3: Additional plates TDX-90, TDX-P-90, TDX-140 and TDX-P-140

Plate type	Outer diameter [mm]	Material
TDX-90	90	Polyamide + GF (natural or grey)
TDX-P-90	90	Polyethylene (natural or grey)
TDX-140	140	Polyamide + GF (natural or grey)
TDX-P-140	140	Polyethylene (natural or grey)

WK THERM ϕ 8

Product description
Additional plates TDX 90, TDX-P-90, TDX 140 and TDX-P-140

Annex A4
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Specification of intended use

Anchorage subject to:

- Wind suction loads.

Note: The anchor shall not be used for the transmission of dead loads of the external thermal insulation composite system.

Base materials:

- Normal weight concrete (base material group A), according to Annex C1.
- Solid masonry (base material group B), according to Annex C1.
- Hollow or perforated masonry (base material group C), according to Annex C1.
- For other base materials of the base material groups A, B or C the characteristic resistance of the anchor may be determined by job site tests according to EOTA Technical Report TR 051, edition December 2016.

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 anchorages and masonry work with the partial safety factors $\gamma_M = 2,0$ and $\gamma_F = 1,5$, if there are no other national regulations.
- Verifiable calculation notes and drawings with anchor positions are prepared taking into account of the loads to be anchored.
- Fasteners are only to be used for multiple fixings of external thermal insulation composite system, according to EAD 330196-01-0604.

Installation:

- Hole shall be drilled by the drill modes according to Annex C1.
- Anchor installation shall be carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.
- Installation shall be executed in temperature from 0°C to +40°C.
- Exposure to UV due to solar radiation of the anchor not protected by rendering by the mortar shall not exceed ≤ 6 weeks.

WK THERM ϕ 8

**Intended use
Specification**

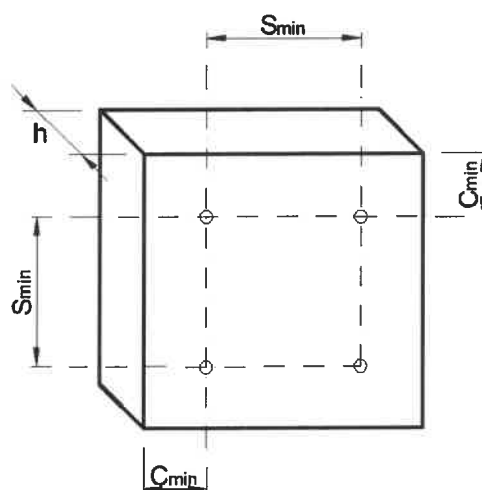
**Annex B1
of European
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Table B1: Installation characteristics

Anchor type		WK THERM ϕ 8
Base material group		A, B, C
Nominal diameter of drill bit	d_o [mm]	8,00
Cutting diameter of drill bit	d_{cut} [mm]	$\leq 8,45$
Depth of drill hole	h_1 [mm]	≥ 35
Effective anchorage depth	h_{ef} [mm]	≥ 25

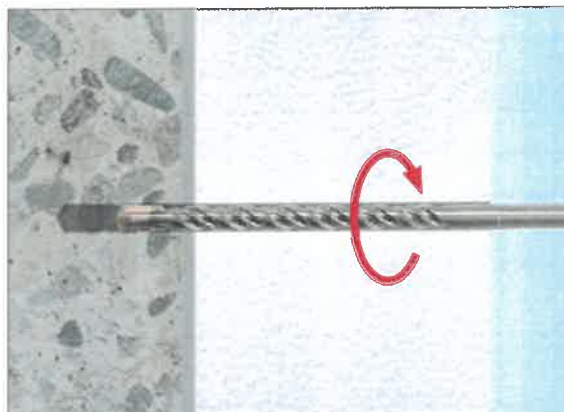
Table B2: Minimum thickness of base material, spacing and edge distance

Anchor type		WK THERM ϕ 8
Minimum thickness of base material	h [mm]	100
Minimum spacing	s_{min} [mm]	100
Minimum edge distance	c_{min} [mm]	100

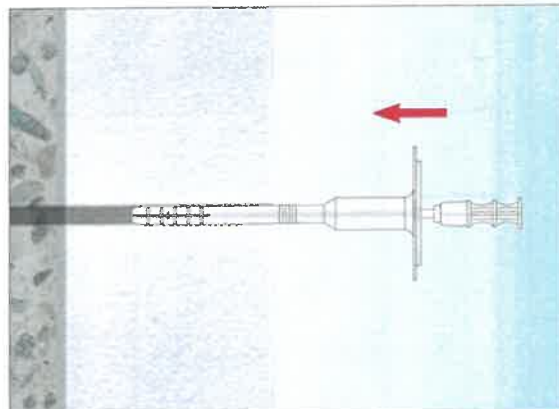
**WK THERM ϕ 8**

Intended use
Installation characteristics, minimum thickness
of base material, edge distance and spacing

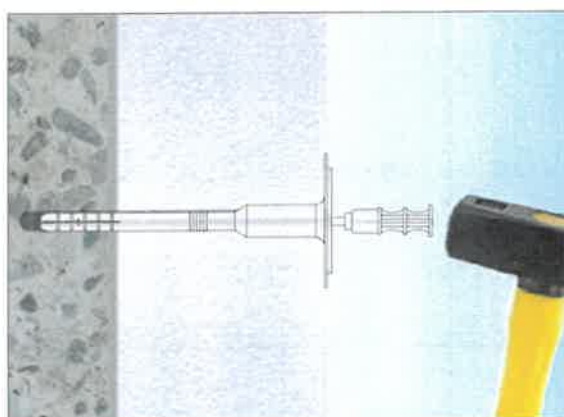
Annex B2
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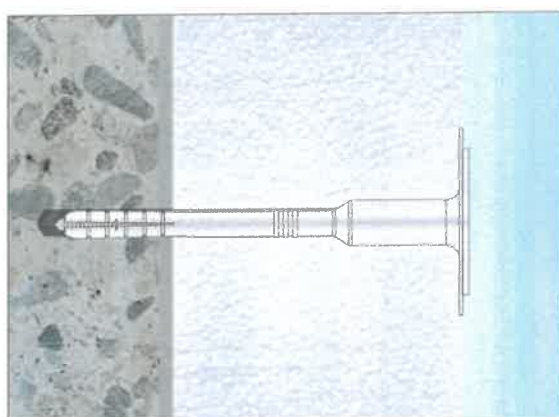
1. Drill hole by corresponding drilling method



2. Set-in anchor manually



3. Set anchor by hammer blows



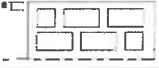
4. Correctly installed anchor

WKTherm ϕ 8

Intended use
Installation instruction of WKTherm ϕ 8 anchor

Annex B3
of European
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ETA-11/0232

Table C1.1: Characteristic resistance under tension loads N_{Rk} in concrete and in masonry for single anchor

Base material group	Base material	Bulk density [kg/dm ³]	Compressive strength [N/mm ²]	Referring standard	N_{Rk} [kN]	Drill method
A	Concrete C12/15			EN 206	1,20	
	Concrete C16/20 – C50/60			EN 206	1,50	
B	Clay brick MZ 	$\geq 1,70$	$\geq 30,0$	EN 771-1	1,50	hammer
	Calcium silicate brick KS 	$\geq 2,00$	$\geq 20,0$	EN 771-2	1,50	hammer
C	Calcium silicate hollow block KSL  $a^1) = 30 \text{ mm}$ 	$\geq 1,60$	$\geq 12,0$	EN 771-2	1,20	hammer
	Vertically perforated clay bricks Hlz  $a^1) = 13 \text{ mm}$ 	$\geq 0,95$	$\geq 12,0$	EN 771-1	0,60	rotary

¹⁾ Minimum values "a". For elements with lower value of "a" the load tests on the construction are required

WK THERM $\phi 8$
Performances
Characteristic resistance

Annex C1
of European
Technical Assessment
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Table C1.2: Characteristic resistance under tension loads N_{Rk} in concrete and in masonry for single anchor

Base material group	Base material	Bulk density [kg/dm³]	Compressive strength [N/mm²]	Referring standard	N _{Rk} [kN]	Drill method
C	Vertically perforated clay bricks HLZ  a ¹⁾ = 13 mm 	≥ 0,95	≥ 12,0	EN 771-1	0,60	rotary
	Vertically perforated porous block Porotherm 25  a ¹⁾ = 10 mm 	≥ 0,80	≥ 15,0	EN 771-1	0,60	rotary
	Vertically perforated clay bricks Porotherm 25  a ¹⁾ = 12 mm 	≥ 0,80	≥ 15,0	EN 771-1	0,60	rotary
Partial safety factor for anchor resistance, γ _M ²⁾		2,0				
1) Minimum values "a". For elements with lower value of "a" the load tests on the construction are required 2) Valid in absence of national regulations						

WK THERM ϕ 8
Performances
 Characteristic resistance

Annex C1
 of European
 Technical Assessment
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Table C2.1: Point thermal transmittance according to EOTA Technical Report TR 025

Anchor description	Insulation thickness h_D [mm]	Point thermal transmittance χ [W/K]
WKTHERM ϕ 8 with head covered by polyamide PA6	60 - 320	0,002
WKTHERM ϕ 8 with head covered by polypropylene PP	70 - 270	0,002

Table C2.2: Plate stiffness according to EOTA Technical Report TR 026

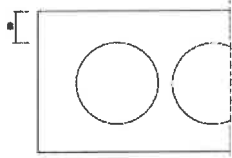
Anchor type	Diameter of the anchor plate [mm]	Load resistance of the anchor plate [kN]	Plate stiffness [kN/mm]
WKTHERM ϕ 8	60	4,3	0,6

WKTHERM ϕ 8**Performances**

Point thermal transmittance and plate stiffness

Annex C2
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Table C3.1: Displacements

Base material group	Base material	Bulk density [kg/dm ³]	Compressive strength [N/mm ²]	$\frac{N_{Rk}}{3}$ [kN]	$\delta\left(\frac{N_{Rk}}{3}\right)$ [mm]
A	Concrete C12/15	–	–	0,40	0,80
	Concrete C16/20 – C50/60	–	–	0,50	0,85
B	Clay brick MZ 	≥ 1,70	≥ 30,0	0,40	1,00
	Calcium silicate brick KS 	≥ 2,00	≥ 20,0	0,50	0,98
C	Calcium silicate hollow block KSL  a ¹⁾ = 30 mm 	≥ 1,60	≥ 12,0	0,40	0,90
	Vertically Vertically perforated clay bricks HLz  a ¹⁾ = 13 mm 	≥ 0,95	≥ 12,0	0,20	0,61

¹⁾ Minimum values "a". For elements with lower value of "a" the load tests on the construction are required

WKThermφ8

Performances
Displacements

Annex C3
of European
Technical Assessment
ETA-11/0232

Table C3.2: Displacements

Base material group	Base material	Bulk density [kg/dm ³]	Compressive strength [N/mm ²]	$\frac{N_{Rk}}{3}$ [kN]	$\delta\left(\frac{N_{Rk}}{3}\right)$ [mm]
C	Vertically perforated clay bricks HLZ  $a^1 = 13$ mm 	$\geq 0,95$	$\geq 12,0$	0,20	0,62
	Vertically perforated porosited block Porothersm 25  $a^1 = 10$ mm 	$\geq 0,80$	$\geq 15,0$	0,20	0,46
	Vertically perforated clay bricks Porothersm 25  $a^1 = 12$ mm 	$\geq 0,80$	$\geq 15,0$	0,20	0,61
¹⁾ Minimum values "a". For elements with lower value of "a" the load tests on the construction are required					

WK THERM ϕ 8
Performances
 Displacements

Annex C3
 of European
 Technical Assessment
 ETA-11/0232



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Evaluation Report for the assessment of

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**Product family to which the construction
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Manufacturing plants

Plant No. 1 and Plant No. 2

This Evaluation Report contains

2 pages

Date

February 2026

1 INTRODUCTION

Wkręt-met Sp. z o.o. wishes to obtain amendment of ETA-11/0232 of 29/05/2023 in case of adding the new head covering of the expansion pin – polypropylene PP.

Table 1

Designation	Material
Anchor sleeve	Virgin plastic: polyethylene, natural or grey
Expansion pin	Carbon steel ($f_{y,k} = 235$ MPa, $f_{u,k} = 360$ MPa) with zinc coat ≥ 5 μm , with head covered by polyamide PA6 or polypropylene PP, natural or grey

2 REFERENCES

- [1] Test report n° 090-068161/3627, Technical and Test Institute for Construction, Prague
- [2] Evaluation Report for ETA-11/0232, ITB
- [3] EAD 330196-01-0604 "Plastic anchors made of virgin or non-virgin material for fixing of external thermal insulation composite systems with rendering"
- [4] EOTA Technical Report TR 025 "Point thermal transmittance of plastic anchors for ETICS"

3 ASSESSMENT

3.1 Point thermal transmittance calculated according to EOTA Technical Report TR 025 has been given in Table 2.

Table 2

Anchor description	Insulation thickness h_D [mm]	Point thermal transmittance χ [W/K]
WK THERM $\phi 8$ with head covered by polyamide PA6	60 - 320	0,002
WK THERM $\phi 8$ with head covered by polypropylene PP	70 - 270	0,002

On behalf of Instytut Techniki Budowlanej



Anna Panek, MSc
Deputy Director of ITB