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European Technical Assessment**ETA-11/0315**
of 23.08.2016**GENERAL PART**Technical Assessment Body issuing the ETA
*Organ za tehnično ocenjevanje, ki je izdal ETA***ZAG Ljubljana**Trade name of the construction product
*Komercialno ime gradbenega proizvoda***DBM-275TOP-FIS**Holder of Technical Assessment
*Imetnik tehnične ocene***D.B.M. s.r.l.**
Via Fabbri 27
31015 Conegliano (TV)
Italy

Product family

33: Nailed-in plastic anchor for fixing of external thermal insulation composite systems with rendering on concrete and clay bricks*Družina proizvoda***33: Zabito plastično sidro za pritrdjevanje toplotno izolacijskih sestavljenih sistemov z ometom na podlagi iz betona in opečnih zidakov**Manufacturing plant
*Proizvodni obrat***D.B.M. s.r.l.**
Via Fabbri 27
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This European Technical Assessment contains

9 pages including 6 annexes, which form an integral part of the document

*Ta Evropska tehnična ocena vsebuje**9 strani vključno s 6 prilogami, ki so sestavni del te ocene*

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

Guideline for European Technical Approval ETA 014, edition 2011, used as EAD

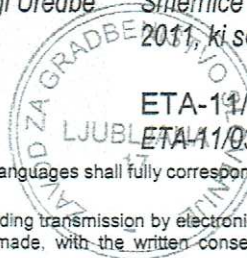
*Ta Evropska tehnična ocena je izdana na podlagi Uredbe (EU) št. 305/2011 na osnovi**Smernice za evropska tehnična soglasja ETAG 014, izdaja 2011, ki se uporablja kot EAD*

This Assessment replaces

ETA-11/0315 issued on 22.08.2011*Ta ocena zamenjuje***ETA-11/0315 izdano dne 22.08.2011**

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SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of the product

The nailed-in anchor DBM-275TOP-FIS consists of a plastic sleeve and an accompanying plastic nail, both made of polypropylene.

The anchor is installed in drilled hole by hammering in the expansion nail. The expansion of the anchor applies the anchorage.

The installed anchor is shown in Annex A1.

2 Specification of the intended use

The performances given in Chapter 3 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 manufacturer, 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 this assessment

3.1 Mechanical resistance and stability (BWR 1)

Requirements with respect to the mechanical resistance and stability of non-load bearing parts of the works are not included in this basic work requirement but are under basic work requirement for safety in use (BWR 4).

3.2 Safety in case of fire (BWR 2)

No performance assessed.

3.3 Hygiene, health and environment (BWR 3)

Regarding dangerous substances contained in this European Technical Assessment, there may be requirements applicable to the products falling within its scope (e.g. transported European legislation and national laws, regulations and administrative provisions). In order to meet provisions of the regulation (EU) No 305/2011, these requirements need also to be complied with, when and where they apply.

3.4 Safety in use (BWR 4)

The basic work requirements for safety in use are listed in Annexes C1 and C2.

3.5 Protection against noise (BWR 5)

Not relevant.

3.6 Energy economy and heat retention (BWR 6)

Not relevant.

3.7 Sustainable use of natural resources (BWR 7)

No performance assessed.

3.8 General aspects relating to fitness for use

Durability and serviceability are only ensured if specifications of intended use according to Annex B are kept.



4 Assessment and verification of constancy of performance (AVCP)

According to the decision 97/463/EC of the European Commission¹ the system of assessment and verification of constancy of performance (see Annex V to regulation (EU) No 305/2011) given in the following table apply.

Product	Intended use	Level of class	System
Plastic anchors for use in concrete and masonry	For use in systems, such as façade systems, for fixing or supporting elements which contribute to the stability of the systems	-	2+

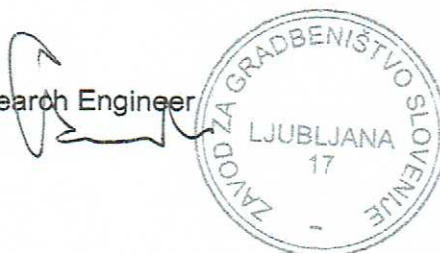
5 Technical details necessary for the implementation of the AVCP system, as provided in the applicable European Assessment Document

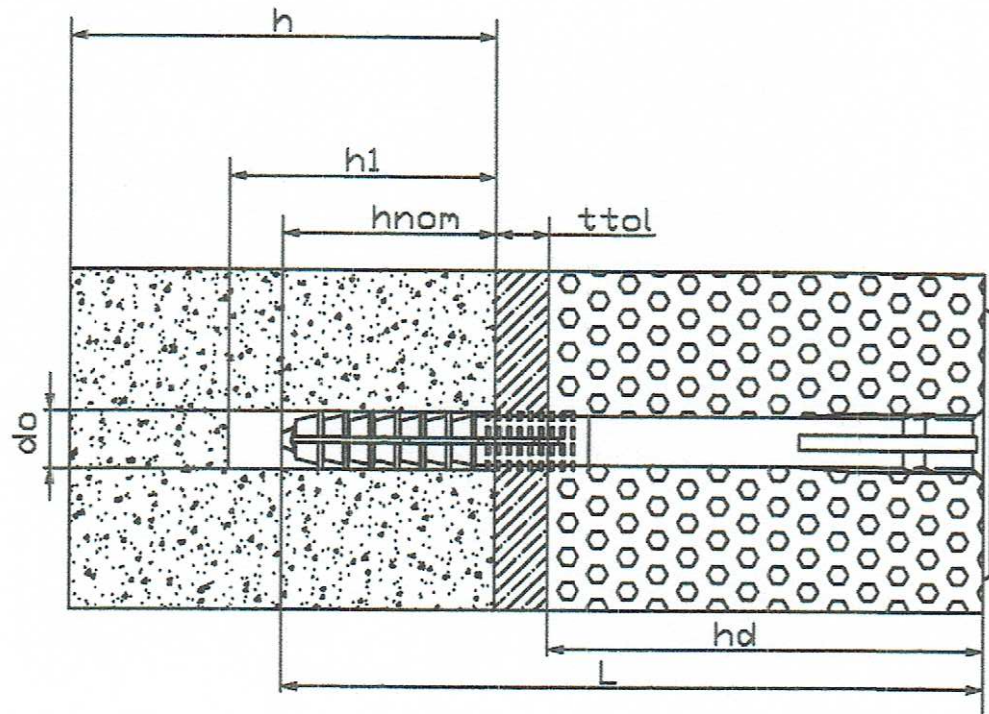
Technical details necessary for the implementation of the AVCP system are laid down in the Control plan deposited at the Slovenian National Building and Civil Engineering Institute (ZAG).

Issued in Ljubljana on 23.08.2016

Signed by:

Franc Capuder, M.Sc., Research Engineer
Head of Service of TAB





Intended use:

- anchorage of ETICS in concrete and masonry

Legend:

- d_0 = diameter of an anchor
- L = length of an anchor
- h_d = thickness of insulation
- h_{nom} = minimum embedment depth (the same of the h_{ef} = effective anchorage depth)
- h = thickness of base material
- h_1 = depth of drill hole
- t_{tol} = thickness of equalizing layer or non-load bearing coating

DBM-275TOP-FIS

Product description

Installed condition

Annex A1



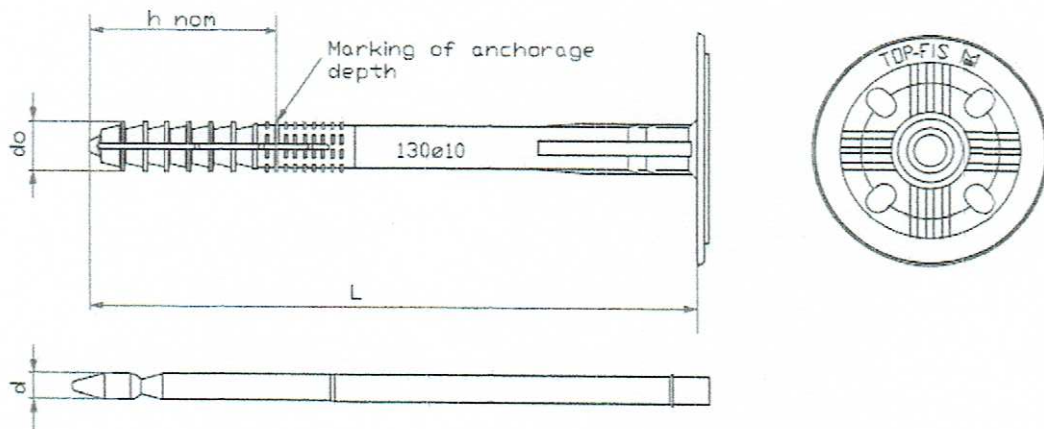


Table A1: Dimensions

Anchor type	Anchor sleeve		Accompanying expansion nail
	d_0 [mm]	h_{nom} [mm]	d [mm]
DBM-275TOP-FIS	10	40	6

Various lengths of the anchor are permissible $L_{min} = 60$ mm; $L_{max} = 210$ mm

Determination of maximum thickness of insulation:

$$h_d = L - t_{tol} - h_{nom}$$

e.g. $L = 140$ mm; $t_{tol} = 0$ mm

$$h_d = 140 \text{ mm} - 0 \text{ mm} - 40 \text{ mm}$$

$$h_d = 100 \text{ mm}$$

Table A2: Materials

Name	Materials
Anchor sleeve	Polypropylene – Moplen EP 300K + BC 250 MO
Expansion nail	Glass fibre reinforced polypropylene – Suplen V 30LC

DBM-275TOP-FIS	Annex A2
Product description Dimensions and Materials	



Specifications of intended use

Anchorage subject to:

- The anchor shall only be used for the transmission of wind suction loads and shall not be used for the transmission of dead loads of thermal insulation composite system. The dead loads have to be transmitted by the bonding of the thermal insulation composite system.

Base materials:

- Normal weight concrete C16/20 to C50/60 (use category A) according Annex C1.
- Solid masonry (use category B), according to Annex C1.
- Hollow or perforated masonry (use category C) according to Annex C1.
- For other base materials of the use categories A, B and C the characteristic resistance of the anchor may be determined by job site tests according to ETAG 014 Edition February 2011, Annex D.

Application temperature range:

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

Design:

- The design of anchorages is carried out in compliance with ETAG 014 , Edition February 2011, under the responsibility of the engineer experienced in anchorages.
- Verifiable calculation notes and drawings shall be prepared taking account of the loads to be anchored. The position of the anchor shall be indicated on the design drawings.
- Fasteners are only to be used for multiple non-structural applications, according to ETAG 014, Edition February 2011.

Installation:

- Drilling method shall comply to Annex C1.
- Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters on the site.
- Ambient temperature during the installation of the anchor 0 °C to 40 °C.
- Exposure to UV due to solar radiation of the anchor not protected by rendering ≤ 6 weeks.

DBM-275TOP-FIS

Intended use
Specification

Annex B1

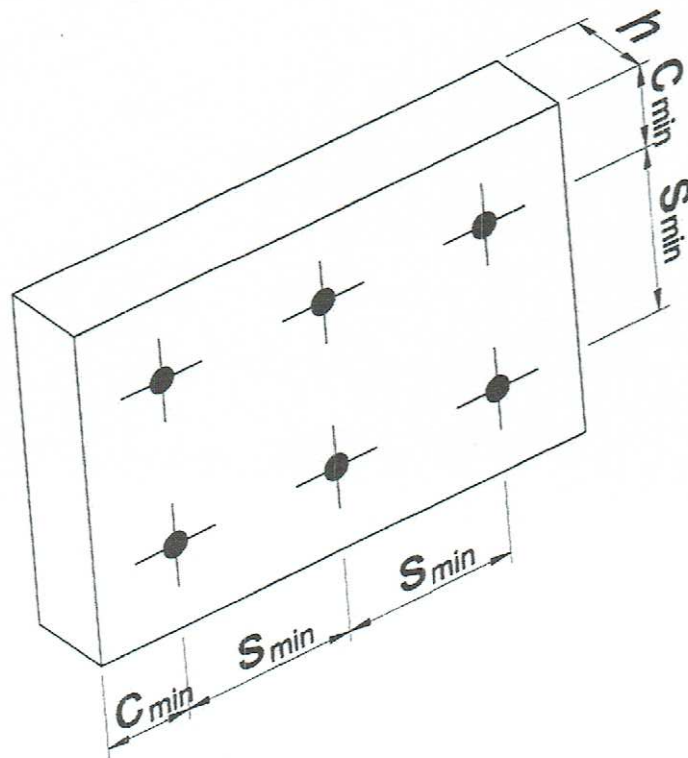


Table B1: Installation parameters for base material category A, B and C

		DBM-275TOP-FIS
Nominal drill bit diameter	$d_0 =$ [mm]	10
Drill bit cutting diameter	$d_{cut} \leq$ [mm]	10,45
Depth of drilled hole to deepest point	$h_1 \geq$ [mm]	50
Embedment depth	$h_{nom} \geq$ [mm]	40

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

		DBM-275TOP-FIS
Minimum thickness of base material	$h =$ [mm]	100
Minimum spacing	$s_{min} =$ [mm]	100
Minimum edge distance	$c_{min} =$ [mm]	100



DBM-275TOP-FIS

Intended use

Installation parameters, minimum thickness, edge distance and spacing

Annex B2



Table C1: Characteristic resistance to tension loads N_{Rk} in concrete and masonry for a single anchor in kN

Base material	Bulk density class [kg/dm ³]	Minimum compressive strength [N/mm ²]	Remarks	Drilling method	N_{Rk} [kN]
Concrete C16/20–C50/60 acc. EN 206				hammer	0,3
Solid clay brick HD 250 × 115 × 60 mm acc. EN 771-1	1739	32,4	cross section vertically to resting area reduced by perforation up to 15%	hammer	0,5
Vertically perforated clay brick Alveolater 30 Incastro h24,5 LD 237 × 300 × 245 mm acc. EN 771-1	1527	10,4	cross section vertically to resting area reduced by perforation more than 15% and less than 50%	rotating	0,3

DBM-275TOP-FIS

Performance

Characteristic resistance

Annex C1



Table C2: Displacements

Base material	Bulk density class [kg/m³]	Minimum compressive strength [N/mm²]	Tension load N [kN]	Displacement δ_m (N) [mm]
Concrete C16/20 - C50/60 acc. EN 206-1			0,10	0,21
Solid clay brick HD 250 × 115 × 60 mm acc. EN 771-1	1739	32,4	0,20	0,60
Vertically perforated clay brick Alveolater 30 Incastro h24,5 LD 237 × 300 × 245 mm acc. EN 771-1	1527	10,4	0,10	0,36

DBM-275TOP-FIS

Performance
Displacements

Annex C2

