



ETA-Danmark A/S
Göteborg Plads 1
DK-2150 Nordhavn
Tel. +45 72 24 59 00
Fax +45 72 24 59 04
Internet www.etadanmark.dk

Authorised and notified according
to Article 29 of the Regulation (EU)
No 305/2011 of the European
Parliament and of the Council of 9
March 2011

MEMBER OF EOTA



European Technical Assessment ETA-12/0292 of 2024/12/20

I General Part

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the construction product:

BARTOLUCCI FMN 10xL

Product family to which the above construction product belongs:

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

Manufacturer:

Bartolucci S.R.L
Via del Commercio, 1
IT-60021 Camerano (AN)
Tel +39 071 7819048
Fax +39 071 7819499
Internet www.bartolucci.cc

Manufacturing plant:

Bartolucci S.R.L
Via del Commercio, 1
IT-60021 Camerano (AN)

This European Technical Assessment contains:

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

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

EAD 330196-01-0604 for Plastic anchors made of virgin or non-virgin material for fixing of ETICS with rendering.

This version replaces:

The ETA with the same number and issued on 2016-08-10

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

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product

The anchor type BARTOLUCCI FMN 10xL fixing of external thermal insulation composite systems (ETICS) consists of the plastic anchor sleeve with a plate for fixing the thermal insulation and a plastic nail as an expansion pin.

The plastic anchor sleeve is made of natural HDPE and the nail is made of glass fibre reinforced polyamide.

The serrated part of anchor sleeve is slotted.

The plastic anchor sleeve is expanded by hammering in the expansion pin, which presses the sleeve against the wall of the drilled hole

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 B1 to B3

The provisions made in this European Technical Assessment are based on an assumed intended 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 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 Characteristics of product

Safety in use (BWR4):

The following essential characteristics are detailed in the Annex from C1 C2:

Characteristics load bearing capacity

Displacement

Plate stiffness

Energy economy and heat retention (BWR6)

No performance assessed.

General aspects

The verification of durability is part of testing of the essential characteristics. Durability is only ensured if the specifications of intended use according to Annex B are taken into account.

3.2 Methods of assessment

The assessment of fitness of the anchor for the intended use in relation to the requirements for mechanical resistance and stability and safety in use in the sense of the Basic Requirements 4 and 6 has been made in accordance with EAD 330196-01-0604 for Plastic anchors made of virgin or non-virgin material for fixing of ETICS with rendering.

In addition to the specific clauses relating to dangerous substances contained in this European technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

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

4.1 AVCP system

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

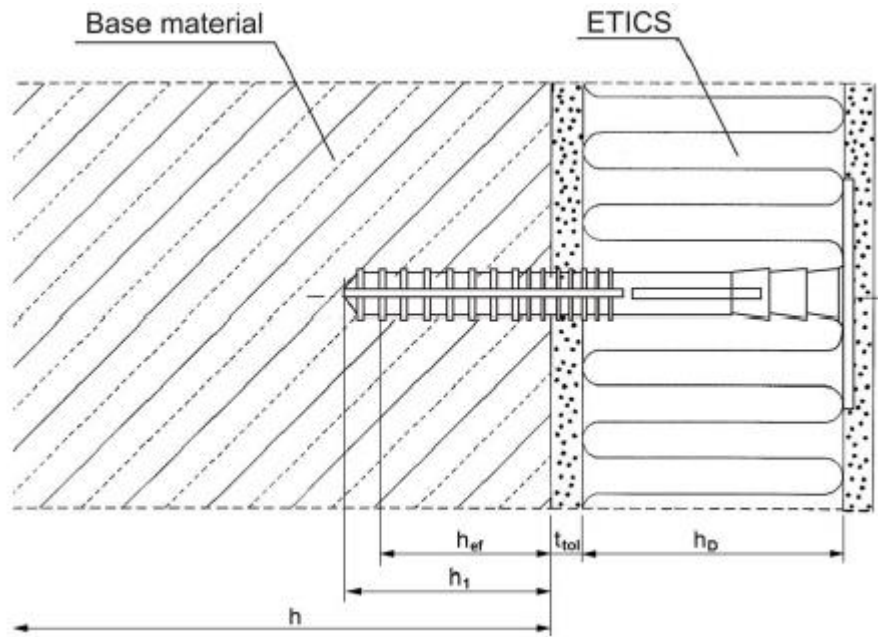
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking.

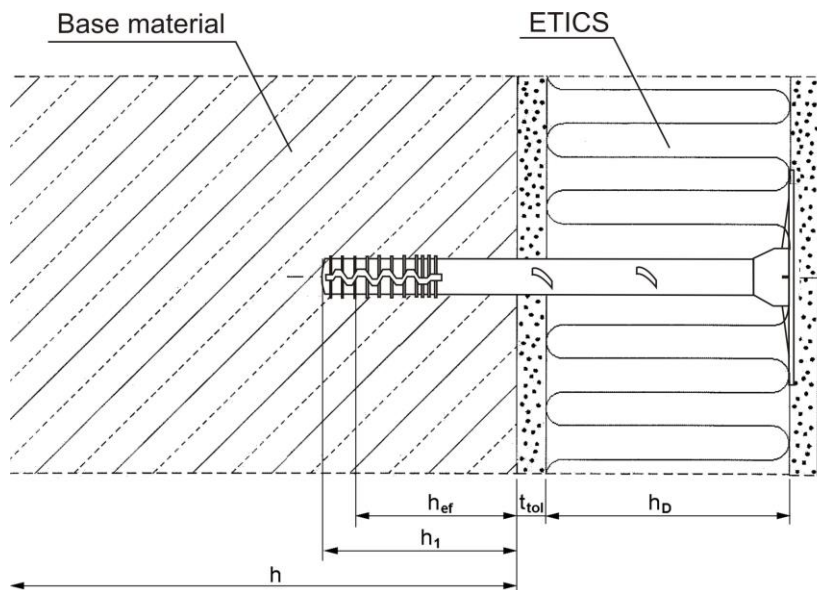
Issued in Copenhagen on 2024-12-20 by



Thomas Bruun
Managing Director, ETA-Danmark



Anchor type FMN 10xL (max L=130) for fixing of external thermal insulation composite systems (installed)

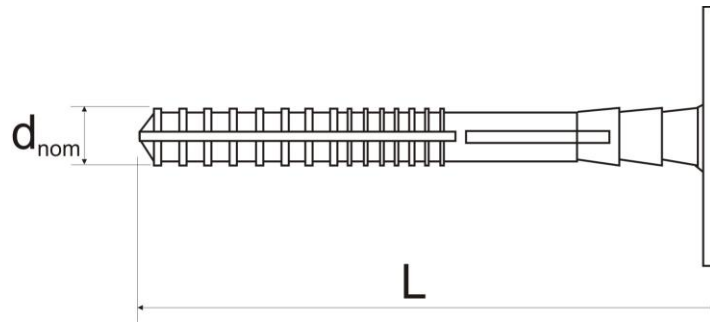


Anchor type FMN 10xL (min L=150) for fixing of external thermal insulation composite systems (installed)

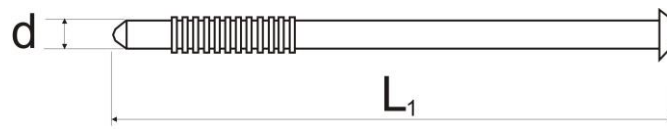
BARTOLUCCI FMN 10xL

Product description - Installed anchor

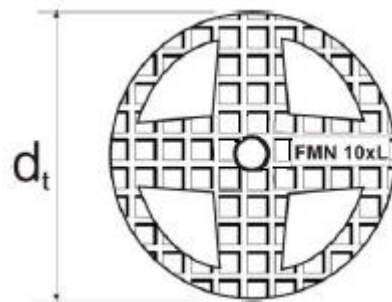
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Anchor type FMN 10xL (max L=130) – sleeve



Anchor type FMN 10xL (max L=130) – pin

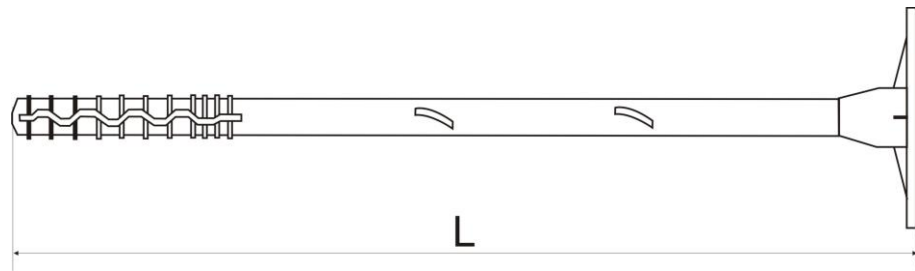


Anchor type FMN 10xL (max L=130) – plate

BARTOLUCCI FMN 10xL

Product description - Installed anchor

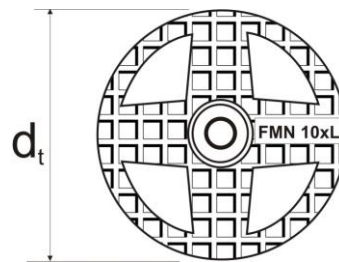
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Anchor type FMN 10xL (min L=150) – sleeve



Anchor type FMN 10xL (min L=150) – pin



Anchor type FMN 10xL (min L=150) – plate

BARTOLUCCI FMN 10xL

Product description – Dimension and materials

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Table A1: Dimensions anchor up to size 130

Anchor type	Anchor sleeve			Expansion pin	
	d_{nom}	L	d_t	d	L_1
FMN 10 × 060	10	60	53	5,3	53
FMN 10 × 070	10	70	53	5,3	63
FMN 10 × 090	10	90	53	5,3	73
FMN 10 × 110	10	110	53	5,3	93
FMN 10 × 130	10	130	53	5,3	113

Table A2: Dimensions anchor size 150 to size 240

Anchor type	Anchor sleeve			Expansion pin	
	d_{nom}	L	d_t	d	L_1
FMN 10 × 150	10	150	58	5,6	133
FMN 10 × 180	10	180	58	5,6	163
FMN 10 × 210	10	210	58	5,6	193
FMN 10 × 240	10	240	58	5,6	223

Table A3: Materials

Designation	Material
Anchor sleeve	DOW HDPE KT10000 UE, white
Plastic nail	Glass fibre reinforced polyamide PA6 GF30, black

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Product description – Dimension and materials

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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:

- Normal weight concrete (use category A) according to 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.

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 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. The position of the anchors is indicated on the design drawings.
- Fasteners are only to be used for multiple fixings for non-structural applications, according to ETAG 014 Edition February 2011.

Installation:

- Drilling method according 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.
- Installation temperature from 0°C to +40°C
- Exposure to UV due to solar radiation of the anchor not protected by rendering ≤ 6 weeks.

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Intended use - Specifications

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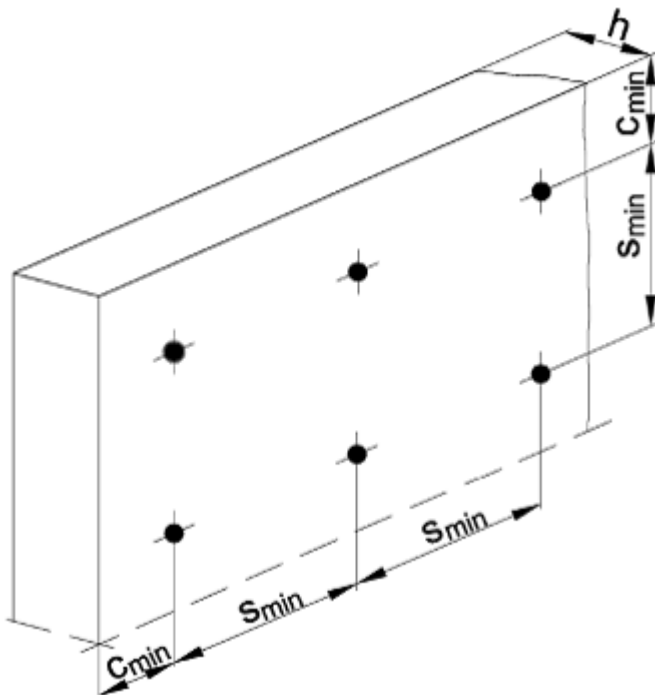
Table B1: Installation parameters for use categories A, B and C

Anchor type		FMN 10xL
Nominal drill hole diameter	$d_0 =$ [mm]	10
Cutting diameter of drill bit	$d_{cut} \leq$ [mm]	$\leq 10,45$
Depth of drill hole to deepest point	$h_1 \geq$ [mm]	≥ 40
Effective anchorage depth	$h_{ef} \geq$ [mm]	$\square 30$

Table B3: Anchor distances and dimensions of members

Anchor type		FMN 10xL
Minimum thickness of member	$h_{min} \geq$ [mm]	100
Minimum spacing	$s_{min} =$ [mm]	100
Minimum edge distance	$c_{min} =$ [mm]	100

Scheme of distances and spacing



BARTOLUCCI FMN 10xL

Installation parameters for use categories



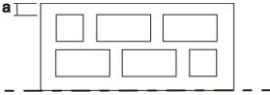
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Installation instructions

The anchor sleeve is set into the drilled hole with a hand hammer by way of a slight hammering. The nail is then hammered into the anchor sleeve, until the head of the nail rests on the plate.

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Procedure	

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

Anchor type					FMN 10xL
Base material	Bulk density class	Minimum Compressive strength	General remarks	Drill method	N_{Rk}
	ρ [kg/dm ³]	f_b [N/mm ²]			[kN]
Normal weight concrete C20/25	≥ 2.30	≥ 30.0	EN 206-1	Hammer	0,39
Normal weight concrete C50/60	≥ 2.40	≥ 65.0	EN 206-1	Hammer	0,42
Solid masonry: Clay brick MZ Rd 2,0/20 	$\geq 2,0$	20,0	Vertically perforation up to 15 %	Hammer	0,47
Perforated masonry: Perforated ceramic brick (Hz B – 1.0 1NF 12-1)  a ¹) =13 [mm] 	$\geq 0,95$	$\geq 12,0$	Vertically perforation more than 15 % and less than 50 %	Rotary	0,22

BARTOLUCCI FMN 10xL



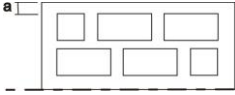
Intended use - Characteristic resistance of the anchor

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Table C2: Plate stiffness acc. to EOTA Technical Report TR 026:2007-06

Material	d_{plate}	$N_{u,m}$	$v(N_{u,m})$	$N_{0,m}$	$v(N_{0,m})$
	[mm]	[kN]	[%]	[kN/mm]	[%]
FMN 10xL (max L=130 mm)	53	0,8	4,5	0,2	7,4
FMN 10xL (min L=150 mm)	58	1,0	3,3	0,2	6,1

Table C3: Displacements

Base material	Bulk density class ρ [kg/dm ³]	Minimum Compressive strength f_b [N/mm ²]	Tension load N [kN]	Displacements $\delta m(N)$ [mm]
Normal weight concrete C20/25	≥ 2.30	≥ 30.0	0,4	0,5
Normal weight concrete C50/60	≥ 2.40	≥ 65.0	0,4	0,5
Solid masonry: Clay brick MZ Rd 2,0/20 	$\square 2,0$	20,0	0,4	0,7
Perforated masonry: Perforated ceramic brick (Hz B – 1.0 1NF 12-1)  $a^1) = 13$ [mm] 	$\geq 0,95$	$\geq 12,0$	0,2	0,4

BARTOLUCCI FMN 10xL

Performance - Plate stiffness and displacements

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