

European Technical Approval**ETA 13/0285**

Trade Name	TEKNOTAN BT
Holder of the approval	ATAB NV d'Herbouvillekaai 80 2020 Antwerpen Belgium
Website	www.atab.be
Generic type and use of construction product	Liquid applied waterproofing systems on the basis of polyurethane for use on balconies and terraces
Validity from:	07/06/2013
to	06/06/2018
Manufacturing plant(s):	ATAB NV d'Herbouvillekaai 80 2020 Antwerpen Belgium
This European Technical Approval contains:	6 pages including 1 annex which form an integral part of the document



European Organisation for Technical Approvals
Organisation Européenne pour l'Agrément Technique
Europäische Organisation für Technische Zulassungen

I. LEGAL BASES AND GENERAL CONDITIONS

1. This European Technical Approval is issued by UBAtc in accordance with:
 - Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products¹, modified by Council Directive 93/68/EEC² and Regulation (EC) N° 1882/2003 of the European Parliament and of the Council³,
 - Belgian law of 25 March 1996 concerning the adaptation of legislative and administrative provisions of Member States to the Construction Products Directive (89/106/EEC) for construction products⁴ and Belgian Royal Decree of 18 August 1998 concerning construction products⁵
 - Common Procedural Rules for Requesting, Preparing and the Granting of European Technical Approvals set out in the Annex to Commission Decision 94/23/EC⁶
 - Guideline for European Technical Approval for liquid applied roof waterproofing kits, ETA-Guideline Nr 005⁷, revision march 2004, Part 1: "General" and Part 6: "Specific stipulations for kits based on polyurethane".
2. The UBAtc is authorized to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant(s). Nevertheless, the responsibility for the conformity of the products to the European Technical Approval and for their fitness for the intended use remains with the holder of the European Technical Approval.
3. This European Technical Approval is not to be transferred to manufacturers or agents of manufacturers other than those indicated on page 1, or manufacturing plants other than those laid down in the context of this European Technical Approval.
4. This European Technical Approval may be withdrawn by UBAtc, in particular pursuant to information by the Commission according to Article 5(1) of Council Directive 89/106/EEC.
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7. The ETA holder confirms to guarantee that the product(-s) to which this approval relates, is/are produced and marketed in accordance with and comply with all applicable legal and regulatory provisions, including, without limitation, national and European legislation on the safety of products and services. The ETA-holder shall notify the UBAtc immediately in writing of any circumstance affecting the aforementioned guarantee. This approval is issued under the condition that the aforementioned guarantee by the ETA holder is continuously observed.

¹ Official Journal of the European Communities N° L 40, 11.2.1989, p. 12

² Official Journal of the European Communities N° L 220, 30.8.1993, p. 1

³ Official Journal of the European Union N° L 284, 31.10.2003, p. 1

⁴ Belgian Law Gazette, 21.05.1996

⁵ Belgian Law Gazette, 11.09.1998

⁶ Official Journal of the European Communities N° L 17, 20.1.1994, p. 34

⁷ Official Journal of the European Communities N° C 212/02, 06.09.2002

II. SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1 Definition of product and intended use

1.1 Definition of product

The liquid applied waterproofing system "TEKNOTAN BT" for balconies and terraces is a system which consists of a first layer of a one-component moisture curing polyurethane TEKNOTAN BT, in which a non-woven glass fleece reinforcement TEKNOFLEECE 225 (with mass per unit area of 225 g/m²) is embedded, and a second layer of TEKNOTAN BT.

TEKNOTAN BT is a single-component moisture triggered, semi-liquid polyurethane paste that forms an elastic film after polymerisation. TEKNOFLEECE 225 is a glass-fibre reinforcing matting.

Specific substrates require a primer (TEKNOPRIMER or TEKNOPRIMER DETAIL) for an adequate adhesion of the waterproofing layer. As assembled system these components form a homogeneous seamless waterproofing.

The waterproofing system shall be covered by one of the following finishing layers:

- Tiling: layer of tiles (with minimal thickness of 4 cm) adhered to the liquid applied waterproofing system with TEKNOFIX.
- Quartz finish: layer with a thickness of 3mm that consists of a mixture of TEKNOCOL (colourless aliphatic polyurethane) and TEKNOQUARTZ stone granules, whether or not covered with an additional coating of TEKNOTRANS.
- TEKNOFLEAKES coloured painting flakes: the flakes are dispersed into an additional coating of TEKNOTAN BT. After drying, this layer is covered with a coating of TEKNOTRANS.
- Anti-slip layer which consists of a mixture of TEKNOTAN BT and TEKNOG RIP.

Table 1: Thickness of the components

Component	Thickness (µm)
TEKNOTAN BT + TEKNOFLEECE 225	± 1.600
TEKNOQUARTZ + TEKNOCOL	± 3.000
TEKNOFLEAKES	± 240
TEKNOG RIP	± 600

1.2 Intended use

The liquid applied waterproofing for balconies and terraces is applied to avoid penetration of atmospheric water and where requirements concerning safety in case of fire, hygiene, health and the environment and safety in use as well as the durability in the sense of the essential requirements N° 2 to N° 4 of the Directive 89/106/EEC shall be satisfied. The liquid applied waterproofing may be used on balconies and terraces with a non-compressible substrate.

The liquid applied waterproofing shows certain levels of performances according to ETAG 005 which facilitate the use taking account of national requirements (see chapter 2.1).

In the manufacturer's technical dossier⁸ (MTD) to this European technical approval (ETA) the manufacturer gave information concerning the substrates which the liquid applied waterproofing is suitable for and on how these substrates shall be pre-treated. It is also stipulated in the MTD for which substrates a primer is necessary.

The verifications which are based on this ETA give reason for the assumption of an intended working life of the waterproofing of 10 years.

1.3 Working Life

The provisions made in this ETA are based on an assumed working life of the waterproofing system of 10 years (W2).

The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

⁸ The manufacturer's technical dossier (MTD) comprises all information necessary for the production and the processing of the product as well as for the repair of the roof waterproofing made from that. It was checked by BUTgb - UBAtc and it was found to be in accordance with the conditions stated in the approval and the characteristic values determined during the approval testing.

The part of the technical dossier to this European technical approval to be treated confidentially (inter alia the test plan for factory production control) is deposited with BUTgb - UBAtc and, as far as this is relevant to the tasks of the approved body involved in the procedure of attestation of conformity shall be handed over to the approved body.

2 Characteristics of the product and methods of verification

2.1 Characteristics of the product

The waterproofing system has the characteristic presented in annex 1 to this ETA.

The components of the waterproofing kit show the characteristic values with respect to the permissible tolerances which are stated in the MTD to this ETA.

The chemical composition and the characteristic property values of the components of the kit and the manufacturing methods are confidential and deposited with BUTgb - UBAtc.

The performance of the reaction to fire behaviour of the product leads to the classification in class F according to EN 13501-1.

The performance of the external fire performance leads to the classification in class B_{ROOF(t1)} according to EN 13501-5 for finishings with tiles and in class F_{ROOF(t1)} for all other finishings.

The verified property values of the waterproofing lead to levels of use categories according to ETAG 005. They are stated in Annex 1. An evaluation oriented at the intended use of the waterproofing can be carried out with them by the user.

2.2 Methods of verification

Assessment of the fitness of the waterproofing for the intended use with regard to the essential requirements N° 2 to N° 4 was performed following the "Guideline for European technical approval of liquid applied roof waterproofing kits", Part 1 "General" and Part 6 "Specific stipulations for kits based on polyurethane" (ETAG 005)⁵.

The products comply with all relevant European and national provisions⁹ applicable for the uses for which they are brought to the market. In addition to this ETA clause relating to dangerous substances, 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 EU Construction Products Directive, these requirements need also to be complied with, when and where they apply.

3 Attestation of conformity of the product and CE marking

3.1 Attestation of conformity

According to the decision 98/599/EC of October 1998 of the European Commission¹⁰ the system 3 of attestation of conformity (Annex III, clause 2(ii) of Directive 89/106/EEC) applies.

This attestation of conformity system distinguishes the followings tasks:

- Tasks for the manufacturer: Factory Production Control (FPC)
- Tasks for the approved body: Initial Type-Testing (ITT) of the product.

3.2 Responsibilities

3.2.1 Tasks of the manufacturer

The manufacturer has set up and shall maintain a documented production control at the factory and perform regular inspection and controls of the production process according to the prescribed test plan¹¹. This ensures that the product continues to have the properties stated in this ETA.

The manufacturer may only use the materials and components specified in the MTD. He shall inspect and/or control the raw materials on acceptance according to the prescribed test plan.

The results of the factory production control shall be recorded and evaluated. The records shall include at least the following information:

- designation of the material (name of the product and of the raw materials)
- type of control or testing
- date of manufacture of the product, batch number if required, and date of control or testing
- result of control or testing and, if applicable, comparison with the requirements
- signature of the person responsible for the factory production control.

The records shall be kept for at least 10 years after the last date of production. On request they shall be presented to BUTgb - UBAtc.

Details concerning extent, type and frequency of the tests or inspections to be performed within the scope of the factory production control shall correspond to the prescribed test plan⁸ which is part of the MTD to this ETA.

The manufacturing and quality control procedures are confidential and deposited with BUTgb - UBAtc.

All weighing, measuring and testing equipment shall be calibrated and regularly inspected according to documented procedures, frequencies and criteria.

The specifications of all incoming raw materials and components shall be documented, as shall the inspection scheme for ensuring their conformity.

⁹ Known at date of issuing

¹⁰ Official Journal of the European Communities N° L 287, 24.10.1998

¹¹ The test plan has been deposited with BUTgb - UBAtc and contains the required information on the factory production control and on the initial type-testing. As far as this is relevant to the tasks of the approved body involved in the procedure of attestation of conformity the test plan will be handed over to the approved body.

In the event of any non-conformity of any product, that product shall be placed into quarantine and action taken to rectify the cause of the non-conformity. Products may not subsequently be dispatched until the problem has been resolved.

3.2.2 Tasks of approved bodies

For initial type-testing, the results of the tests performed as part of the assessment for the ETA may be used unless there are changes in the manufacturing procedure that will affect the properties.

Additional initial type-testing may be necessary, e.g. when starting a new production line.

3.3 CE marking

The manufacturer shall make a declaration of conformity, stating that the construction product is in conformity with this ETA.

According to Council Directive 93/68/EEC¹² the CE marking consists of the letters "CE" in the form laid down in the Directive. The CE marking symbol and the accompanying information shall be shown on the packaging and/or on the accompanying commercial documents.

The CE symbol shall be accompanied by the following information:

- identification of the product
- name and address or identifying mark of manufacturer and factory
- the last two digits of the year in which the CE marking was affixed
- Reference to the ETA-Guideline
- number of the European technical approval

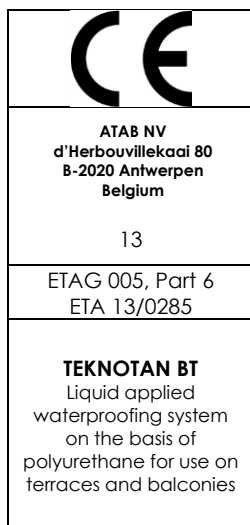


Figure 1: Example of CE marking and accompanying information

4 Assumptions under which the fitness of the product for the intended is given

4.1 Manufacturing

The components of the kit of the waterproofing are factory-made according to the procedure laid down in the MTD.

The ETA is issued for the kit on the basis of the product composition deposited with BUTgb - UBAtc. Changes to the components of the kit or in the production process of the components, which could result in the production process and/or the properties of the product deposited being incorrect should be notified to BUTgb - UBAtc before the changes are introduced.

BUTgb - UBAtc will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment/alterations to the ETA shall be necessary.

4.2 Design

The fitness for the respective use results in the levels of use categories stated in Annex 1, if need be, taking account of national requirements.

In the MTD the manufacturer gave information on the quantities consumed and the processing methods which shall lead to the required thickness of the waterproofing of at least 1.0 mm.

4.3 Processing

The fitness for use of the waterproofing can be assumed only, if the processing is carried out according to the processing instructions stated in the MTD by the manufacturer, in particular taking account of the following points:

- Processing by appropriately trained personnel,
- processing of only those components which are a marked component of the kit,
- processing with the required tools and adjuvants,
- precautions during processing,
- inspecting the roof surface for cleanliness and correct preparation and, if need be, applying a primer before applying the waterproofing,
- inspecting compliance with suitable weather and curing conditions,
- finding out whether to the given ambient temperature the application with the adjustment for summer or winter is to be accomplished,
- ensuring a thickness of the waterproofing of at least 1.0 mm by processing of appropriate minimum quantities of material,
- inspections during installation and of the finished waterproofing and documentation of the results.

The information as to

- methods of repair on site,
- handling of waste products

shall be observed.

4.4 Responsibility of the manufacturer

It is the manufacturer's responsibility to make sure that all those who use the kit will be appropriately informed about the specific conditions according to sections 1, 2, 4, and 5 of this ETA, including the annex and about the parts of the MTD that are not confidential.

¹² Official Journal of the European Communities L 220 of 30.8.1993

5 Information by the manufacturer

5.1 Information on packaging, transportation and storage

Information on:

- Packaging
- transportation
- storage

are given in the MTD.

5.2 Information on use, maintenance, repair

Information on:

- Use
- maintenance
- repair

are given in the MTD.

Annex I System build-up of the waterproofing 'TEKNOTAN BT'

Components:

- 1 Primer (where required) TEKNOPRIMER or TEKNOPRIMER DETAIL
- 2 First layer of TEKNOTAN BT in which TEKNOFLEECE 225 reinforcement is embedded
- 3 Second layer of TEKNOTAN BT
- 4 One of the finishings as listed in this ETA

The thicknesses of the components of the system are specified in Table 1 of this ETA.

The substrate, primers and finishings applicable to this kit are defined in the body of this ETA and the MTD.

Applicable to the waterproofing "TEKNOTAN BT":

- Water vapour diffusion resistance factor μ ≈ 7850
- Resistance to wind loads ≥ 50 kPa for substrates with tear resistance ≥ 50 kPa
- Resistance to spreading fire and radiant heat class B_{ROOF(t1)} on finishings with tiles, F_{ROOF(t1)} for all other finishings
- Reaction to fire class F (no performance determined)
- Statement on dangerous substances none contained
- Resistance to slipperiness NPD (no performance determined)

Levels of use categories according to ETAG 005 with relation to:

- Working life: W2
- Climatic zones: M
- Imposed loads: P3 (All finish layers in combination with non-compressible substrates, e.g. concrete, steel, ...)
- Roof slope: S1 to S4
- Lowest surface temperature: TL3
- Highest surface temperature: TH3

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Waterproofing

TEKNOTAN BT

Liquid applied waterproofing systems on the basis of polyurethane for use on balconies and terraces