EUROPEAN TECHNICAL ASSESSMENT

ETA 06/0083
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BCCA

**Technical Assessment Body issuing the European Technical Assessment: UBAtc.
UBAtc has been designated according to Article 29 of Regulation (EU) No 305/2011 and is member of EOTA (European Organisation for Technical Assessment)**

Trade name of the construction product:	Hannoband® BG1
Product family to which the construction product belongs:	Impregnated joint sealing tape made of foamed polyurethane for air and watertightness joints around windows and in facades
Manufacturer:	HANNO-WERK GMBH & Co. KG Hanno-Ring 5 D-30880 Laatzen Germany
Manufacturing plants:	HANNO-WERK GMBH & Co. KG Hanno-Ring 5, D-30880 Laatzen Germany
Website:	hiip://www.hanno.com
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:	EAD 320001-00-0605, Joint sealing tape on the basis of a pre-compressed flexible polyurethane foam for sealing around windows and joints in building facades
This version replaces:	ETA 06/0083 issued on 12 November 2012
This European Technical Assessment contains:	7 pages, including 1 annex which forms an integral part of the document

EOTA

European Organisation for Technical Assessment

Legal bases and general conditions

1 This European Technical Assessment is issued by UBAtc (Union belge pour l'Agrément technique de la construction, i.e. Belgian Union for technical Approval in construction), in accordance with:

- Regulation (EU) N° 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC
- Commission Implementing Regulation (EU) N° 1062/2013 of 30 October 2013 on the format of the European Technical Assessment for construction products
- European Assessment Document (EAD) 320001-00-0605, Joint sealing tape on the basis of a pre-compressed flexible polyurethane foam for air and watertightness sealing around windows and joints in building facades

2 Under the provisions of Regulation (EU) No 305/2011, UBAtc is not authorized to check whether the provisions of this European Technical Assessment are met once the ETA has been issued.

3 The responsibility for the conformity of the performances of the products with this European Technical Assessment and the suitability of the products for the intended use remains with the holder of the European Technical Assessment.

4 Depending on the applicable Assessment and verification of constancy of performance (AVCP) system, (a) notified body(ies) may carry out third-party tasks in the process of assessment and verification of constancy of performance under this Regulation once the European Technical Assessment has been issued.

5 This European Technical Assessment allows the manufacturer of the construction product covered by this ETA to draw up a declaration of performance for the construction product.

6 CE marking should be affixed to all construction products for which the manufacturer has drawn up a declaration of performance.

7 This European Technical Assessment is not to be transferred to other manufacturers, agents of manufacturers, or manufacturing plants other than those indicated on page 1 of this European Technical Assessment.

8 The European Technical Assessment holder confirms to guarantee that the product(-s) to which this assessment 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 assessment is issued under the condition that the aforementioned guarantee by the ETA-holder will be continuously observed.

9 According to Article 11(6) of Regulation (EU) No 305/2011, when making a construction product available on the market, the manufacturer shall ensure that the product is accompanied by instructions and safety information in a language determined by the Member State concerned which can be easily understood by users. These instructions and safety information should fully correspond with the technical information about the product and its intended use which the manufacturer has submitted to the responsible TAB for the issuing of the European Technical Assessment.

10 Pursuant to Article 11(3) of Regulation (EU) No 305/2011, manufacturers shall adequately take into account changes in the product-type and in the applicable harmonised technical specifications. Therefore, when the contents of the issued European Technical Assessment do not any longer correspond to the product-type, the manufacturer should refrain from using this European Technical Assessment as the basis for their declaration of performance.

11 All rights of exploitation in any form and by any means of this European Technical Assessment are reserved for UBAtc and the ETA-holder, subject to the provisions of the applicable UBAtc regulations.

12 Reproduction of this European Technical Assessment including transmission by electronic means shall be in full. However, partial reproduction can be made with the written consent of UBAtc. In this case partial reproduction has to be designated as such. Texts and drawings of advertising brochures shall not contradict or misuse the European Technical Assessment.

13 Subject to the application introduced, this European Technical Assessment is issued in English and may be issued by the UBAtc in its official languages. The translations correspond fully to the English reference version circulated in EOTA.

14 A European Technical Approval was issued by UBAtc on 12 November 2012. Compared with this European Technical Approval, the current European Technical Assessment comprises the following main changes:

- The reaction to fire and air permeability classes have changed
- More specific information regarding release of dangerous substances and durability has been added

Technical Provisions

1 Technical description of the product

1.1 General

This European Technical Assessment is being issued for the products specified on the cover page on the basis of agreed data/information, deposited with the UBAtc, which identifies the products that have been assessed and judged.

Changes to the product/production process, which could result in the deposited data/information being incorrect, should be notified to the UBAtc before the changes are introduced. The 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.

1.2 Hannoband BG1

This European Technical Assessment specifies impregnated pre-compressed joint sealing tapes made of flexible polyurethane foam.

The joint sealing tape is manufactured in different dimensions (width and thickness) depending on the intended dimensions of the joints.

For installation purposes they are delivered in various lengths on spools, pre-compressed and with laminated single-sided self-adhesive foil, which allow installing the sealing tape and maintain it before its expansion.

2 Specification of the intended use(s) in accordance with the applicable EAD

2.1 General

The product is used to seal joints around windows and in building facades. It provides air and/or water tightness. The usual contact building materials are materials such as aluminium, concrete, brick, stone, PVC and wood with or without coating.

The provisions made in this European Technical Assessment are based on the assumed working life of 10 years, provided that the product is subject to appropriate installation, use and maintenance. These provisions are based upon the current state of the art and the available knowledge and experience.

The assumed working life of a system cannot be taken as a guarantee given by the producer, but is to be used as a mean for selecting the appropriate product in relation to the expected economically reasonable working life of the works.

Assumed intended working life means that it is expected that, when the working life has elapsed, the real working life may be, under normal use conditions, considerably longer without major degradation affecting the Basic requirements for construction works.

2.2 Provisions related to manufacturing, packaging, transportation and storage

The product is factory-made according to the procedure laid down in the technical file deposited with the UBAtc.

Information on packaging, transportation and storage is given in the ETA mounting instructions provided by the manufacturer to UBAtc

2.3 Provisions related to the design and use of the product

2.3.1 Design and dimensioning

Annex 1 specifies the technical delivery conditions and application of the air and water tightness sealing. The highest and lowest values include possible movements of the joint width.

Additional manufacturer's instruction for choosing and setting the product in place are specified in the material data sheets.

2.3.2 Installation

The product gives satisfaction and functions correctly only, if the installation is carried out according to the installation instructions stated in the mounting instruction by the manufacturer, in particular taking into account the following points:

- installation by appropriately trained personnel,
- installation with the required tools,
- Precaution during installation
- application in suitable weather conditions,

The information as to method of repair on site and handling of waste products shall be observed.

2.3.3 Manufacturer's responsibilities with regard to installation

It is the responsibility of the ETA holder to ensure that the information on the product characteristics and on the product application is given to the person(s) concerned. This information may be provided by reproduction of the relevant parts of this European Technical Assessment.

3 Performance of the product and references to the methods used for its assessment

3.1 Generalities

The identification and characteristics of the raw materials, constituents and final product and the manufacturing methods are part of the technical file of UBAtc.

The verified property values of the product leads to conclude that the product is fit for use for air and/or water tightness of windows perimeter and façade joints as stated in clause 2 of the ETA. The fitness for use in case of stagnant water was not evaluated.

There may be other requirements applicable to the products resulting from other applicable national regulations and administrative provisions. These requirements need also to be complied with

3.2 Reaction to fire

The reaction to fire of the product is class E according EN 13501-1
Note: A European reference fire scenario has not been laid down for façades. In some Member States, the classification of the product as above might not be sufficient for the use in façades. An additional assessment according to national provisions (e.g. based on a large-scale test) might be necessary to demonstrate the compliance with Member State regulations or administrative provisions.

3.3 Watertightness

The joint seal remains watertight between high temperatures up to 80 °C and low temperatures down to -30 °C. The driving rain resistance is classified according to EN 12208 as class 9a (600 Pa).

3.4 Air permeability

The joint permeability coefficient a = 0,34 [m³/(h m (daPa)^{0,87})] determined according to EN 12114 for a joint sealed with tape with the highest degree of compression 20% specified by the manufacturer, oriented at b_{max} (tape compression direction), and for a the minimum tape width $t_F \geq 50$mm.

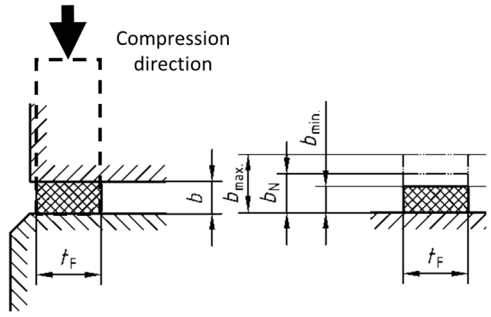

Figure 1 – Joint and tape geometry

The same performances may be achieved with a lower degree of compression and with a higher width, t_F. The minimum joint width b_{min} cannot be smaller than the minimum thickness of the compressed sealing tape at state of delivery. In these conditions, the air permeability of a tape sealed joint is class 2 according EN 12207.

The water vapour diffusion factor μ is lower than:

- μ < 3,5 (fully decompressed)
- μ < 3,9 (degree of compression 68%)
- μ < 6,1 (degree of compression 80%)
- μ < 12,9 (degree of compression 84%)

3.5 Dangerous substances

The performance of the product related to the emissions and/or release and, where appropriate, the content of dangerous substances was assessed based on the information provided by the manufacturer as follows according EOTA TR034:

- Carcinogens were not detected after 3 and 28 days.
- The sum of the VOC ("TVOC") after 3 days was below the evaluation limit of EC 1 PLUS of 750 mg/m³.
- The sum of the VOC ("TVOC") after 28 days was below the evaluation limit of EC 1 PLUS of 60 mg/m³.
- The sum of the SVOC after 28 days was below the rating limit of EC 1 PLUS of 40 mg/m³.
- For the VOC substances with more than 5 µg/m³ determined after 28 days, the result obtained is Rating R below the upper limit of 1.
- The sum of the VOC substances without NIK value after 28 days was below the assessment limit of EC 1 PLUS of 40 mg/m³.
- The sum of formaldehyde and acetaldehyde after 3 days was below the assessment limit of 50 ppb

Within the scope of this assessment, there may be other requirements applicable to dangerous substances resulting from transposed European legislation or applicable national regulations and administrative provisions (see EU database and the different national regulations).

3.6 Durability

The resistance to UV and moisture was evaluated in accordance with EN ISO 1856 after a 3-month exposure to radiation in accordance with EN ISO 4892-2, Table 3, Method A, cycle 1

The resistance temperature changes was evaluated in accordance with EN ISO 1856 after conditioning to temperature from -20°C to 50°C

The resistance heat was evaluated in accordance with EN ISO 1856 after conditioning of 72 h at 70 °C.

The compatibility of the sealing tape with concrete, facing brick, calcareous sandstone, white PVC, and pinewood with and without coating has been verified.

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

NOTE In accordance with Regulation (EU) N° 305/2011, Directive 89/106/EEC is repealed, but references to the repealed Directive shall be construed as references to the Regulation.

The systems of assessment and verification of constancy of performance specified by the European Commission detailed in EC Decision 2003/656/EC[1] are as follows:

– Systems 1, 3 or 4 depending on the reaction to fire class
– System 4 for uses in building works

The system(s) of assessment and verification of constancy of performance are shown in the following Table.

Table 1: Systems of assessment and verification of constancy of performance applicable to the product

Product(s)	Intended uses	Level(s) or class(es) (reaction to fire)	Assessment and verification of constancy of performance system(s)[a]
Sealing kits, profiles and strips	In building works	Any	4
	For uses subject to regulations on reaction to fire	(A1, A2, B, C)*	1[b]
		(A1, A2, B, C)**, D, E, F	3[b]
		(A1 to F)*** , NPD****	4

[a] System 1, 3 and 4 : See Regulation (EU) N° 305/2011, Annex V
[b] Not covered by EAD 320001-00-0605

* Products/materials for which a clearly identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g. an addition of fire retardants or a limiting of organic material)

** Products/materials not covered by footnote (*)

*** Products/materials that do not require to be tested for reaction to fire (e.g. products/materials of class A1 according to Commission Decision 96/603/EC, as amended)

**** No Performance Declared' in accordance with Regulation (EU) N° 305/2011, Article 6(f)

5 Technical details necessary for the implementation of the AVCP system

5.1 Tasks for the ETA-holder

5.1.1 Factory production control (FPC)

The manufacturer shall set up a production control at his factory and perform regular controls of the production process according to the control plan[2].

This ensures that the product shows the properties stated in this ETA.

The manufacturer may only use incoming materials according to the material data sheets. He shall control the incoming materials according to the provisions specified in the factory production control plan.

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

– Name of the product,
– Date of manufacturing of the product, batch N° if needed, and date of inspection or control of the product,
– Result of inspections or controls and, as far as applicable, comparison with the requirements,
– Signature of the person responsible for the factory production control.

The records shall be kept for at least five years. On request they shall be presented to 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 factory production control plan.

5.1.2 Initial type-testing of the product

The verifications underlying this ETA have been carried out on samples from the current production.

Changes in the production process or starting the production in another manufacturing plant shall be reported to UBAtc in order to evaluate if initial type-testing is necessary.

When necessary, initial type-testing shall be carried out according to the provisions of the control plan.

[1] Commission decision of 12 September 2003, published in the Official Journal of the European Union, L231 of 17/09/2003

[2] The control plan is a confidential part of the technical file and deposited with UBAtc and contains the required information on the factory production control and on the initial type-testing

6 Bibliography

European Assessment Document (EAD) 320001-00-0605, Joint sealing tape on the basis of a pre-compressed flexible polyurethane foam for sealing around windows and joints in building facades

EN 12207 Windows and doors. Watertightness. Classification

EN 12208 Windows and doors. Air permeability. Classification

EN 12114 Thermal performance of buildings. Air permeability of building components and building elements. Laboratory test methods

EN ISO 4892-2 Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps

EN ISO 1856 Flexible cellular polymeric materials -- Determination of compression set

EN 13501-1 Fire classification of construction products and building elements. Classification using test data from reaction to fire tests

EOTA TR034 General BWR3 Checklist for EADs/ETAs - Dangerous substances

Annex I

Technical delivery condition and application				
Reference Number	Tape Width [mm]	Nominal Joint [mm]	Minimum Joint [mm]	Maximum Joint [mm]
8/1,5-2,5	8	2	1,5	2,5
10/1,5-2,5	10	2	1,5	2,5
15/1,5-2,5	15	2	1,5	2,5
20/1,5-2,5	20	2	1,5	2,5
10/2-4	10	3	2	4
15/2-4	15	3	2	4
20/2-4	20	3	2	4
10/3-7	10	4	3	7
12/3-7	12	4	3	7
15/3-7	15	4	3	7
20/3-7	20	4	3	7
10/5-10	10	6	5	10
15/5-10	15	6	5	10
20/5-10	20	6	5	10
30/5-10	30	6	5	10
15/7-12	15	8	7	12
20/7-12	20	8	7	12
30/7-12	30	8	7	12
20/8-15	20	10	8	15
25/8-15	25	10	8	15
30/8-15	30	10	8	15
20/10-18	20	12	10	18
25/10-18	25	12	10	18
30/10-18	30	12	10	18
35/15-25	35	16	15	25
40/15-25	40	16	15	25
50/20-35	50	22	20	35
60/20-35	60	22	20	35

UBAtc asbl is a non-profit organization according to Belgian law. It is a Technical Assessment Body notified by the Belgian notifying authority, the Federal Public Services Economy, SMEs, Self-Employed and Energy, on 17 July 2013 in the framework of Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC and is member of the European Organisation for Technical Assessment, EOTA (www eota.eu).

This European Technical Assessment has been issued by UBAtc asbl, in Sint-Stevens-Woluwe, on the basis of the technical work carried out by the Assessment Operator, BCCA.

On behalf of UBAtc asbl,

Eric Winnepenninckx
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Benny De Blaere,
director

On behalf of the Assessment Operator, BCCA, responsible for the technical content of the ETA,

Olivier Delbrouck,
director general

The most recent version of this European Technical Assessment may be consulted on the UBAtc website (www.ubatc.be).