

European Technical Approval ETA-12/0200

English translation prepared by DIBt - Original version in German language

Handelsbezeichnung <i>Trade name</i>	"Intusit pro"
Zulassungsinhaber <i>Holder of approval</i>	DOYMA GmbH & Co Industriestraße 43- 57 28876 Oyten DEUTSCHLAND
Zulassungsgegenstand und Verwendungszweck <i>Generic type and use of construction product</i>	Biegsames, im Brandfall aufschäumendes Brandschutzformteil/Matte <i>Flexible intumescent pre-shaped element/mat</i>
Geltungsdauer: <i>Validity:</i>	vom <i>from</i> 16 May 2012 bis <i>to</i> 16 May 2017
Herstellwerk <i>Manufacturing plant</i>	55

Diese Zulassung umfasst
This Approval contains

9 Seiten einschließlich 1 Anhang
9 pages including 1 annex

I LEGAL BASES AND GENERAL CONDITIONS

- 1 This European technical approval is issued by Deutsches Institut für Bautechnik 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;

Gesetz über das In-Verkehr-Bringen von und den freien Warenverkehr mit Bauprodukten zur Umsetzung der Richtlinie 89/106/EWG des Rates vom 21. Dezember 1988 zur Angleichung der Rechts- und Verwaltungsvorschriften der Mitgliedstaaten über Bauprodukte und anderer Rechtsakte der Europäischen Gemeinschaften (Bauproduktengesetz - BauPG) vom 28. April 1998⁴, as amended by law of 31 October 2006⁵;

Common Procedural Rules for Requesting, Preparing and the Granting of European technical approvals set out in the Annex to Commission Decision 94/23/EC⁶.
- 2 Deutsches Institut für Bautechnik is authorized to check whether the provisions of this European technical approval are met. Checking may take place in the manufacturing plant. 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 indicated on page 1 of this European technical approval.
- 4 This European technical approval may be withdrawn by Deutsches Institut für Bautechnik, in particular pursuant to information by the Commission according to Article 5(1) of Council Directive 89/106/EEC.
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- 6 The European technical approval is issued by the approval body in its official language. This version corresponds fully to the version circulated within EOTA. Translations into other languages have to be designated as such.

¹ Official Journal of the European Communities L 40, 11 February 1989, p. 12
² Official Journal of the European Communities L 220, 30 August 1993, p. 1
³ Official Journal of the European Union L 284, 31 October 2003, p. 25
⁴ *Bundesgesetzblatt Teil I 1998*, p. 812
⁵ *Bundesgesetzblatt Teil I 2006*, p. 2407, 2416
⁶ Official Journal of the European Communities L 17, 20 January 1994, p. 34

II SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1 Definition of product/ products and intended use

1.1 Definition of the construction product

This European technical approval (ETA) applies to flexible intumescent pre-fabricated element "Intusit pro".

The construction product "Intusit pro" is a factory-made, pre-shaped element, manufactured in form of textured mats and strips or precast elements.

The flexible intumescent product may be cut in size on site.

The fire sealing effect of the product "Intusit pro" bases on the creation of foam in case of fire that closes gaps, joints and other openings of construction elements and restricts the passage of heat, flame and /or smoke this way.

The standard dimensions of the construction product "Intusit pro" are:

- thickness: 2 mm to 50 mm \pm 10 %
- length: 90 mm to 1200 mm \pm 2 mm
- width: 10 mm to 100 mm \pm 1 mm.

Other dimensions are possible.

The characteristics of the flexible intumescent product "Intusit pro" and its following relevant performances were determined as follows⁷:

- tested thickness/tolerance: 3,5 mm \pm 10 %
- density: 1250 kg/m³ \pm 10 %
- loss of mass on heating: 62,0% to 72,0 %
(tested at 500 °C for 30 minutes)
- expansion ratio: 10,0 to 18,0
(tested at 500 °C for 30 minutes on samples 3,8 mm thick with a top-load)
- expansion pressure: 0,6 N/mm² bis 1,2 N/mm²
(at 300°C)

1.2 Intended use

The construction product "Intusit pro" is intended to be used as component essential for the fire sealing and fire protective effect of construction elements and special assemblies which shall meet requirements concerning the safety in case of fire. It prevents the heat transmission and propagation of fire by creating foam.

The product "Intusit pro" in end use conditions according to this ETA may be subjected to conditions for the use category type Y₂, (-5/70)°C (in-door use without restriction in relative humidity; at temperatures of -5°C to +70°C). This includes the in-door use in accordance with the use categories type Z₂ and Z₁.⁸

As demonstrated by additional tests the use at permanent temperatures up to +80°C is allowed.

⁷ Test methods in accordance with the CUAP 11.04/06, version December 2011; see EOTA Technischer Report 024 (TR 024), Ausgabe Juli 2009

⁸ EOTA TR 024, version July2009, clause 4.1, use categories, Note 5

If the construction product "Intusit pro" is intended to be used in specific conditions or out-door application, further tests according to TR 024 are necessary.

The provisions made in this European technical approval are based on an assumed working life of the flexible, intumescent fabric "Intusit pro" in end use application of 10 years, provided that the conditions laid down in sections 4.2, 5.1 and 5.2 for packaging, transport, storage, installation, use, maintenance and repair are met.

The indications given on the working life cannot be interpreted as a guarantee given by the producer or the approval 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.

2 Characteristics of the product and methods of verification

2.1 Mechanical resistance and stability

Not relevant

2.2 Safety in case of fire

2.2.1 Reaction to fire

The flexible intumescent product "Intusit pro" corresponds to the reaction-to-fire class E according to EN 13501-1⁹.

NOTE:

A European reference fire scenario for façades is not available. In some Member States the classification of the flexible, intumescent product "Intusit pro" according to EN 13501-1 may possibly not be sufficient for the use in façades. In order to comply with the provisions of such Member States, an additional assessment of the flexible, intumescent product "Intusit pro" according to national provisions (e.g. on the basis of a large-scale test) may be necessary, until the European classification system has been amended.

2.2.2 Resistance to fire

For demonstration of the suitability of "Intusit pro" in fire resistant assemblies (end use) the flexible, intumescent product "Intusit pro" was tested as effective fire sealing component of a pipe penetration seal for combustible pipes concerning fire resistance according to EN 1363-1¹⁰ and EN 1363-3¹¹.

The tested penetration seal passed the test till interruption after 96 minutes without receiving one of the fail criteria.

This test basically qualifies the flexible, intumescent product "Intusit pro" for use in fire sealing and fire stopping applications.

The performance "resistance to fire" is not being considered in more detail in this ETA. It shall be tested separately for the final elements concerned.

2.3 Hygiene, health and the environment

2.3.1 Air and water permeability

Not relevant

⁹	EN 13501-1:2009	Fire classification of construction products and building elements, Part 1: Classification using test data from reaction to fire tests.
¹⁰	EN 1363-1:1999	Fire resistance tests; Part 1: General requirements
¹¹	EN 1366-3:2009	Fire resistance for service installations; Part 3 Penetration seals

2.3.2 Release of dangerous substances

According to the manufacturer's declaration and the chemical composition deposited¹², the flexible, intumescent product "Intusit pro" does not contain dangerous substances as registered in the Council Directive 76/769/EEC (amended by EC Decision 455/2009/EC of 6 May 2009)¹³ and listed in the database of the European Commission; published in the Regulation (EC) N° 1272/2008 of 16 December 2008¹⁴.

NOTE:

In addition to the specific clauses relating to dangerous substances contained in this European technical approval, 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 Directive, these requirements need also to be complied with, when and where they apply.

2.4 Safety in use (mechanical resistance and stability)

Not relevant

2.5 Protection against noise

Not relevant

2.6 Energy, economy and heat retention

Not relevant

2.7 Aspects of durability and serviceability

The construction product "Intusit pro" was tested for the use category type $Y_{2,(-5/70)^{\circ}\text{C}}$.⁷

No essential changes of the relevant intumescent properties expansion ratio and expansion pressure could be assessed.

Conclusion:

The construction product "Intusit pro" under end-use conditions can be exposed to in-door conditions with or without high humidity, to occasional or permanent condensation at temperatures between -5°C and +80°C without expecting essential changes of the intumescent properties expansion ratio, expansion pressure.

Voluntarily the following additional verifications for the product's behaviour of the product were provided¹⁵:

- exposure to a permanent temperature of +80 °C for 40 days,
- exposure to permanent condensation
- exposure to permanent wetness)
- exposure to solvents
 - butyl acetate
 - butanol
 - solvent naphtha
 - fuel oil
- subsequent over-painting with paints on the basis of:
 - acrylic dispersion
 - alkyd resin

¹² The detailed chemical composition was presented to DIBt for assessment and is deposited at DIBt.

¹³ Official Journal of the European Communities L 137 of 3 June 2009, p 3

¹⁴ Official Journal of the European Communities L 353 of 31 December 2008, p 1

¹⁵ EOTA Technical Report 024 (TR 024), version July 2009, clause 4.3

- polyurethane acrylic (PUR)
- epoxy resin
- exposure to intimate contact with plastics (PVC, PE).

After these exposures no essential changes of the intumescent properties expansion ratio and expansion pressure could be assessed.

3 Evaluation and attestation of conformity and CE marking

3.1 System of attestation of conformity

According to the Decision 1999/454/EC of the European Commission¹⁶ system 1 of the attestation of conformity applies.

In addition, according to the Decision 2001/596/EC of the European Commission¹⁷ system 3 of the attestation of conformity applies with regard to reaction to fire.

The systems of attestation of conformity are defined in the following:

System 1: Certification of the conformity of the product by an notified certification body on the basis of:

- (a) Tasks for the manufacturer:
 - (1) factory production control (FPC);
 - (2) further testing of samples taken at the factory by the manufacturer in accordance with a prescribed test plan;
- (b) Tasks for the notified body:
 - (3) initial type-testing of the product (ITT);
 - (4) initial inspection of factory and of factory production control;
 - (5) continuous surveillance, assessment and approval of factory production control.

System 3: Declaration of conformity of the product by the manufacturer on the basis of:

- (a) Tasks for the manufacturer:
 - (1) factory production control (FPC);
- (b) Tasks for the notified body:
 - (2) initial type-testing of the product (ITT).

3.2 Responsibilities

3.2.1 Tasks for the manufacturer and the notified body/bodies

3.2.1.1 Factory production control

The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including records of results performed. This production control system shall insure that the product is in conformity with this European technical approval.

The manufacturer may only use raw materials and constituent stated in the technical documentation of this European technical approval.

¹⁶ Official Journal of the European Communities L 178/42 of 14/07/99

¹⁷ Official Journal of the European Communities L 209/33 of 02/08/2001

The factory production control (FPC) shall be in accordance with the control plan which is part of the technical documentation of this European technical approval. The control plan is laid down in the context of the factory production control system operated by the manufacturer and deposited with Deutsches Institut für Bautechnik.¹⁸

The results of FPC shall be recorded and evaluated in accordance with the provisions of the control plan of 11/05/2012.

3.2.1.2 Other tasks for the manufacturer

The manufacturer shall, on the basis of a contract, involve a body/bodies which is/are notified for the tasks referred to in section 3.1 in the field of "Fire stopping and fire sealing products" in order to undertake the actions laid down in section 3.2.2 For this purpose, the control plan referred to in sections 3.2.1.1 and 3.2.2 shall be handed over by the manufacturer to the notified body/bodies involved.

The manufacturer shall make a declaration of conformity, stating that the construction product is in conformity with the provisions of the European technical approval ETA-12/0200 issued 16/05/2012.

3.2.2 Tasks for the notified bodies

The notified body/bodies shall perform the

- initial type-testing of the product (system 1 and 3),
 - initial inspection of factory and of factory production control (system 1),
 - continuous surveillance, assessment and approval of factory production control (system 1),
- in accordance with the provisions laid down in the control plan of 11/05/2012.

The notified body shall retain the essential points of its actions referred to above and state the results obtained and conclusions drawn in written reports.

The notified certification body involved by the manufacturer shall issue an EC certificate of conformity of the product stating the conformity with the provisions of this European technical approval.

In cases where the provisions of the European technical approval and its control plan are no longer fulfilled the certification body shall withdraw the certificate of conformity and inform Deutsches Institut für Bautechnik without delay.

3.3 CE marking

The CE marking shall be affixed on the product itself or on the packaging and on the accompanying commercial document, e.g. the EC declaration of conformity. The symbol "CE" shall be followed by the identification number of the notified certification body and the following additional information:

- the name and address of the producer,
- the last two digits of the year in which the CE marking was affixed,
- the number of the EC certificate of conformity for the product (System 1),
- the number of the European technical approval,
- type of product

¹⁸

The "control plan" is a confidential part of the European technical approval and only handed over to the approved body/bodies involved in the procedure of attestation of conformity. See section 3.2.2.

– type of use categories

Example: see Annex 1.

4 Assumptions under which the fitness of the products for the intended use was favourably assessed

4.1 Manufacturing

The European technical approval is issued for the product "Intusit pro" on the basis of agreed data and information, deposited with Deutsches Institut für Bautechnik, which identifies the products assessed and judged. Changes - concerning the product or the production process, which could result in these deposited data and information being incorrect - should be notified to Deutsches Institut für Bautechnik before implementing the changes.

The Deutsches Institut für Bautechnik will decide whether or not such changes affect the approval and consequently the validity of the CE marking on the basis of the approval and if so whether further assessment or modifications to the approval shall be necessary.

4.2 Installation

Additionally installed cover-sheets for mechanical protection must not restrict the creation of foam of the flexible, intumescent product "Intusit pro".

The product may be cut to size on site with appropriate tools (cutter, knife).

The manufacturer's installation instruction shall be considered.

5 Indications to the manufacturer

5.1 Packaging, transport and storage

The flexible, intumescent product "Intusit pro" shall be protected from direct exposure to weathering during transport.

The construction product "Intusit pro" should be stored at a temperature between +2°C and +50 °C and at relative humidity between 50 % and 70 % RH.

5.2 Use, maintenance, repair

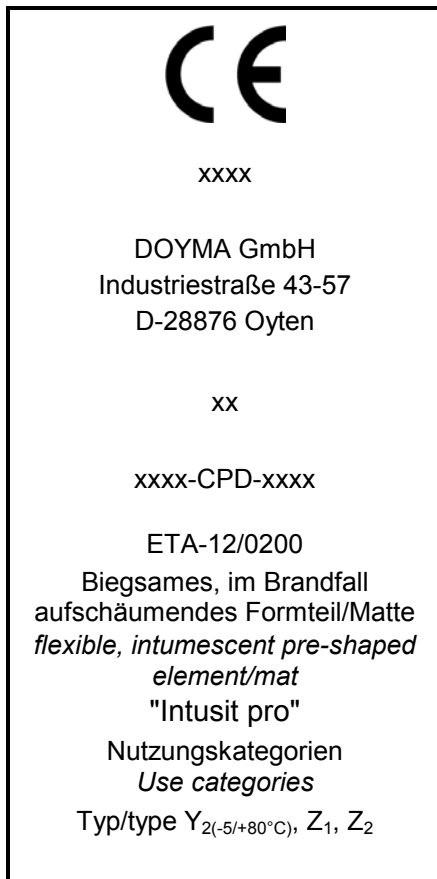
Damaged sections and pre-shaped elements of "Intusit pro" shall be only replaced by new, intact sections/elements of the same flexible, intumescent product. The required quantity and the total thickness of material shall be maintained.

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beglaubigt
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ANNEX 1

Example of CE-marking for the construction product "Intusit pro"



symbol "CE"

Identification number of notified certification body for AoC system 1

name and address of the producer

last two digits of the year in which the CE marking was affixed .

number of the EC certificate of conformity for the product (System 1)

number of the European technical approval

type of product and the trade name

use categories according to ETA-12/0200