

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-16/0894
of 21 June 2017

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

"Intusit pro"

Product family
to which the construction product belongs

Intumescent products for fire sealing and fire stopping
purposes

Manufacturer

DOYMA GmbH & Co
Industriestraße 43- 57
28876 Oyten
DEUTSCHLAND

Manufacturing plant

55¹

This European Technical Assessment
contains

6 pages including 1 annex, which forms an integral part of
this assessment

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

European Assessment Document (EAD)
350005-00-1104

This version replaces

ETA-16/0894 issued on 2 March 2017

¹ Address known at DIBt.

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Specific Part

1 Technical description of the product

Object of this European Technical Assessment (ETA) is the intumescent construction product "Intusit pro".

In case of fire, exposed to high temperatures, the intumescent product expands and generates foam. This foam seals joints and gaps, closes voids and openings. Thus, the foam restricts the passage and the spread of heat, smoke, flames or any combination of these.

The technical characteristics relevant for fire sealing and fire stopping effects of the construction product "Intusit pro" are given in Annex 1.

The flexible intumescent construction product "Intusit pro" essentially consists of intumescent substances and a binder. "Intusit pro" is a flexible, factory-made, pre-shaped element or is produced in form of textured mats, strips or precast elements.

The intumescent construction product "Intusit pro" in form of mats is delivered preferably in the following standard dimensions:

- Range of nominal thickness: 2 mm to 50 mm; tolerance $\pm 10\%$ for each
- Range of nominal length: 90 mm to 1200 mm; tolerance ± 2 mm for each
- Range of nominal width: 10 mm to 100 mm; tolerance ± 1 mm for each.

Other dimensions are possible.

The intumescent construction product "Intusit pro" may be cut on site.

2 Specification of the intended use in accordance with the applicable European Assessment Document (EAD)

The construction product intumescent construction product "Intusit pro" is assessed on the basis of EAD 350005-00-1104² as an intumescent product for fire sealing and fire stopping purposes without defined final intended use (IU 1).

The construction product "Intusit pro" is intended to be used as an essential component in construction products, construction elements, assemblies, kits and special constructions which need to meet requirements concerning the safety in case of fire.

In case of fire, the product delays the heat transfer through fire resistant construction products and construction elements by expanding under the impact of high temperatures and thus restricting the spread of fire.

The performance given in section 3 is only valid, if the construction product "Intusit pro" in use considers the instructions and the conditions stated in section 3.3.

The test and assessment methods on which this European Technical Assessment is based, lead to the assumption of working life of the intumescent construction product "Intusit pro" of at least 10 years in final use.

The indications given on the working life cannot be interpreted as a guarantee given by the producer, 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 Official Journal of the EU N° C 378/02 of 13/11/2015

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

3.1 Safety in case of fire (BWR 2)

3.1.1 Reaction to fire

Essential characteristic	Performance
Reaction to fire	Class E in accordance with EN 13501-1

The intumescent construction product "Intusit pro" meets the reaction to fire requirements of class E in accordance with EN 13501-1³.

3.1.2 Resistance to fire

The performance "resistance to fire" shall be determined separately for every final use and shall be classified, if required for the construction element concerned.

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content and release of dangerous substances	No dangerous substances ⁴

The detailed chemical composition of the intumescent construction product "Intusit pro" was assessed by DIBt and is deposited with DIBt.

3.3 General aspects

Durability testing shall be an integral part of assessing the basic works and performance requirements. The following specific provisions for use shall be complied with to ensure the durability of the performance.

The testing and the assessment of the relevant product performance were carried out for environmental conditions of type Y_{2, (0 °C/70 °C)} (product intended for frost-protected indoor use at temperatures up to +70 °C ± 5 °C and with changing air humidity, temporary, repeated or permanent condensation but no impact of rain and no direct UV-radiation) in accordance with EOTA TR 024⁵, section 4.2.5.

Result:

The intumescent construction product "Intusit pro" can be used under use conditions of type Y_{2, (0 °C/70 °C)}, without having to fear essential changes in the relevant fire sealing and fire stopping properties and the resulting performance. This assessment includes the in-door use under use conditions of type Z₁ and Z₂.

Additionally the intumescent product "Intusit pro" was tested under specific application conditions according to EOTA TR 024, section 4.3:

- Exposure to a constant temperature of 80 °C for 40 days,
- Exposure to solvents (tested with Butylacetat, Butanol, solvent naphtha and fuel)
- Subsequent over-painting (tested with coatings on the basis of acryl dispersion, alkyd resin, polyurethanacryl and epoxide resin,
- Exposure to intimate contact to plastics (PVC, PE).

The characteristics "expansion ratio" and "expansion pressure" did not change essentially due to the exposure.

³ EN 13501-1 Fire classification of construction products and building elements, Part 1 Classification using test data from reaction to fire tests and A1:2009

⁴ In accordance with the Regulation (EC) No 1272/2008 of 16/12/2008

⁵ EOTA TR 024 Characterisation, Aspects of Durability and Factory Production Control for Reactive Materials, Components and products; amended version July 2009

English translation prepared by DIBt

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

In accordance with the European Assessment Document EAD No 350005-00-1104 the Decision of the commission N° 1999/454/EC of 22 June 1999 (OJ of the EU L 178 of 14 July 1999, p 42), amended by EC Decision 2001/596/EC of 8 January 2001(OJ of the EU L 209 of 2 August 2001, p 33) is the legal basis for AVCP.

So system 1 applies for the assessment and verification of constancy of performance (AVCP). See Annex V in conjunction with Article 65 (2) of the Regulation (EU) N° 305/2011 and the following table:

Product	Intended use	characteristic	System
"Intusit pro"	Components effective in view of safety in case of fire (BWR 2) used in construction products, construction elements, kits and special assemblies	reaction to fire, properties relevant for the fire sealing and fire stopping effect	1

5 Technical details necessary for the implementation of the procedure for assessment and verification of constancy of performance (AVCP) system 1, as provided for in the applicable European Assessment Document

The technical details necessary for the implementation of the system for assessment and verification of constancy of performance are laid down in the control plan (confidential part of this ETA) deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 21 June 2017 by Deutsches Institut für Bautechnik

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beglaubigt:
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**CHARACTERISTICS OF THE CONSTRUCTION PRODUCT RELEVANT FOR THE
FIRE SEALING AND FIRE STOPPING EFFECTS OF "INTUSIT PRO"**

Characteristic	Test method ⁶	Range of determined values and tolerances
Density	EOTA TR 024 ⁵ , Abs. 3.1.4	1250 kg/m ³ ± 10 %
Expansion ratio	EOTA TR 024 ⁵ , cl. 3.1.11 Method 1 at 500 °C for 30 minutes with a top load	10,0 to 18,0 (tested for a thickness of 3,8 mm)
Expansion pressure	EOTA TR 024 ⁵ , cl. 3.1.12 Method 4 at 300 °C	0,50 N/mm ² to 1,20 N/mm ²

⁶ Details of test method are deposited with DIBt.