

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

**ETA-15/0665**  
**of 16 June 2020**

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 ED-L", "Intusit ED-U" and "Intusit ED-U(K)"

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

01<sup>1</sup>

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

EAD 350005-00-1104, edition May 2015

This version replaces

ETA-15/0665 issued on 11 May 2017

<sup>1</sup> Address known at DIBt

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## Specific Part

### 1 Technical description of the product

Object of this European Technical Assessment (ETA) are the intumescent construction products "Intusit ED-LC" and "Intusit ED-UC" inclusively the modification "Intusit ED-U(K)".

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 construction products "Intusit ED-L", "Intusit ED-U" and "Intusit ED-U(K)" are flexible intumescent construction products of dark-grey colour, produced in form of mats, strips, tape-profiles of different cross-sections or preformed elements, cuts and stampings. The intumescent constructions products "Intusit ED-L", "Intusit ED-U" and "Intusit ED-U(K)" essentially consist of intumescent substances and a binder.

The product "Intusit ED-U(K)" consists of "Intusit ED-U" additionally equipped with a double-faced adhesive glass fibre lamination<sup>2</sup>.

The basic variants of the products are processed by extrusion and may be cut afterwards.

Preferably cuts and strips are produced of nominal thicknesses between 1 mm and 3 mm and are traded in rolls.

"Intusit ED-U(K)" is cut and faced with double-faced adhesive glass fibre lamination at the factory.

The technical characteristics relevant for fire sealing and fire stopping effects of the construction products "Intusit ED-L", "Intusit ED-U" and "Intusit ED-U(K)" are given in Annex 1.

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

The construction products "Intusit ED-L", "Intusit ED-U" and "Intusit ED-U(K)" are assessed on the basis of EAD 350005-00-1104<sup>3</sup> as an intumescent product for fire sealing and fire stopping purposes without defined final intended use (IU 1).

The construction products "Intusit ED-L", "Intusit ED-U" and "Intusit ED-U(K)" are intended to be used as an essential component in construction elements, assemblies 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 elements and assemblies 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 products "Intusit ED-L", "Intusit ED-U" and "Intusit ED-U(K)" in use consider 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 construction products "Intusit ED-L", "Intusit ED-U" and "Intusit ED-U(K)" 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.

<sup>2</sup> Type, manufacturer and characteristics defined

<sup>3</sup> Official Journal of the EU N° C 378/02 of 13/11/2015

### 3 Performance of the products 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 <sup>4</sup>

The intumescent construction products "Intusit ED-L" (thickness: 1,2 mm ± 0,3 mm) and "Intusit ED-U" (nominal thickness between 1,0 mm and 3,0 mm; tolerance in thickness 10 % for each) and "Intusit ED-U(K)" (nominal thickness: 2,2 mm tolerance in thickness 10%) meet the reaction to fire requirements of class E in accordance with EN 13501-1.

##### 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 <sup>5</sup>

The detailed chemical composition of the intumescent construction products "Intusit ED-L" and "Intusit ED-U" as well as the laminated variation "Intusit ED-U(K)" were assessed by DIBt and are 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 under environmental conditions and the assessment of the fire sealing and fire stopping properties and of the performance of the construction materials "Intusit ED-U" and of its variant "Intusit ED-U(K)" and "Intusit ED-L" were carried out in accordance with EAD Nr. 350005-00-1104, edition May 2015.

The intumescent products "Intusit ED-L" and "Intusit ED-U"/"Intusit ED-U(K)" were tested for use under environmental conditions of type Y<sub>2</sub> – products intended for use at temperatures below 0 °C, but no impact of rain and no UV-radiation – Indoor application at temperatures between -20 °C and +70 °C and at changing air humidity; temporary, repeated or permanent condensation.

Result:

The intumescent construction products "Intusit ED-L" and "Intusit ED-U"/"Intusit ED-U(K)" as well as cuts and preformed pieces of them can be used under climatic use conditions of type Y<sub>2</sub>, 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 Z<sub>1</sub> and Z<sub>2</sub>. (see EAD 350005-00-1104, clause 1.2.2).

<sup>4</sup> 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

<sup>5</sup> In accordance with the Regulation (EC) No 1272/2008 of 16/12/2008

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 ED-L" "Intusit ED-U" und "Intusit ED-U(K)"	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 16 June 2020 by Deutsches Institut für Bautechnik

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*beglaubigt:*  
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## CHARACTERISTICS RELEVANT FOR THE FIRE SEALING AND FIRE STOPPING EFFECTS OF THE CONSTRUCTION PRODUCTS

### "Intusit ED-L", "Intusit ED-U" and "Intusit ED-U(K)"

Characteristic	Range of determined values and tolerances	Test method <sup>6</sup>
<b>"Intusit ED-L"</b>		
nominal thickness	1,2 mm ± 0,3 mm	See control plan
mass per unit area	1,20 kg/m <sup>2</sup> ±10 %	
expansion ratio	4,0 to 8,5	
expansion pressure	0,15 N/mm <sup>2</sup> to 0,35 N/mm <sup>2</sup>	
<b>"Intusit ED-U"</b>		
nominal thickness	1,0 mm to 3,0 mm ±10 % for each	See control plan
mass per unit area	thickness 1 mm: 1,20 kg/m <sup>2</sup> ±10 % thickness 3 mm: 3,60 kg/m <sup>2</sup> ±10 %	
expansion ratio	18,0 to 25,0	
expansion pressure	thickness 1 mm: 0,50 N/mm <sup>2</sup> to 1,00 N/mm <sup>2</sup> thickness 3 mm: 0,35 N/mm <sup>2</sup> to 0,85 N/mm <sup>2</sup>	
<b>"Intusit ED-U(K)"</b>		
nominal thickness	2,2 mm ±10 %	See control plan
mass per unit area	2,40 kg/m <sup>2</sup> ±10 % (2,2 mm)	
expansion ratio	11,0 to 19,0	
expansion pressure	0,40 N/mm <sup>2</sup> to 0,70 N/mm <sup>2</sup>	

The chemical reaction of foaming starts at ca. 150° C.

<sup>6</sup> Details of the test method are deposited with DIBt