



# The ETA for ETICS

## Basics of the technical assessment of ETICS with rendering



Matthias Hammerla  
R&D Knauf Group

# The ETA for ETICS



- I. Overview on terms and definitions
- II. Basic information on ETAs
  - a. General information
  - b. Specific information
- III. Summary and Outlook

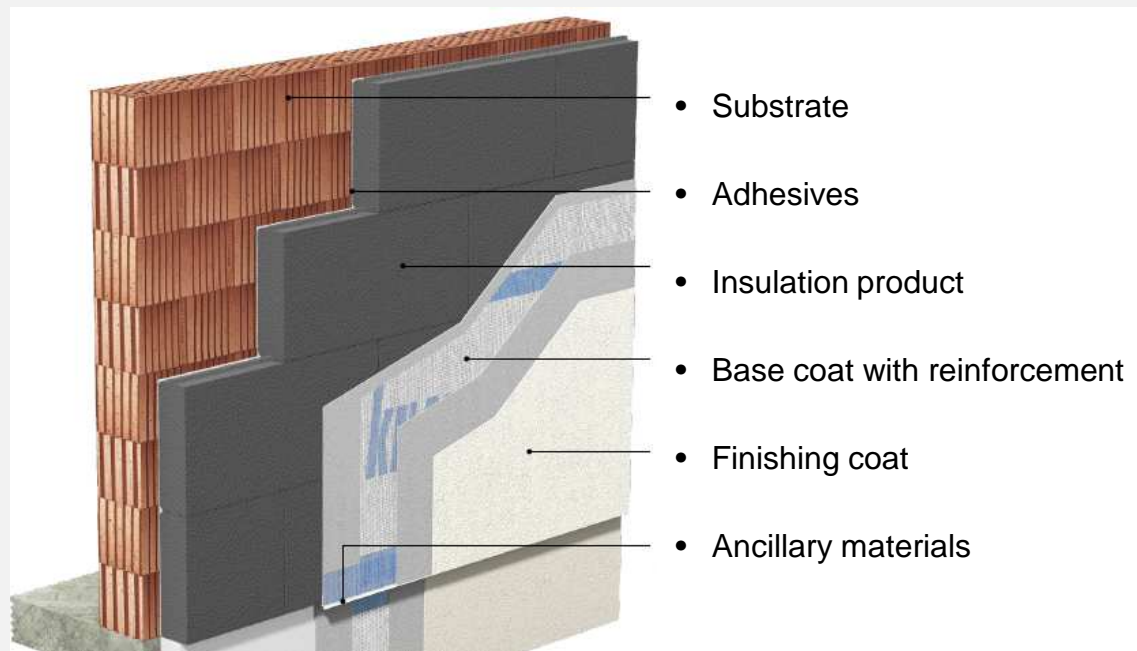
# The ETA for ETICS

## I. Overview on terms and definitions



### ETICS –

External Thermal Insulation Composite System



# The ETA for ETICS



## I. Overview on terms and definitions

### ETA - European Technical Assessment

In the CPR context, the ETA(ssessment) is based on an agreement between the manufacturer and the Technical Assessment Body (TAB) concerning those characteristics for which the manufacturer wishes to declare the performance and which might be relevant for the intended use. [EOTA – [www.eota.eu](http://www.eota.eu)]

### EOTA - European Organization for Technical Assessment

### ETAG - European Technical Approval Guideline

Approval Guidelines are one by one converted into EADs since 2013, when the Construction Products Directive was replaced by the Construction Product Regulation (No. EU 305/2011)

### EAD - European Assessment Document

EADs are developed, when a product is not or not fully covered by harmonised technical specification e.g. a European Standard (hEN, EN)

The ETA is the basis for the Declaration of Performance (DoP). It provides the voluntary way for the manufacturer to CE-mark a construction product.

# The ETA for ETICS



## I. Overview on terms and definitions

ETAG 004 has not yet been converted into an EAD

ETAG 014 has already been converted into EAD 330196-00-0604

**Categorization of ETAGs in the product areas according to Annex IV Regulation (EU) No 305/2011**

ETAG	Titles	Product area
001	Anchors	33
002	Structural Sealant Glazing Kits	9
003	Internal Partition Kits	21
004	External Thermal Composite Systems with rendering	4
005	Liquid Applied Roof Waterproofing Kits	3
006	Systems of Mechanically fastened Flexible Roof waterproofing Membranes	3
007	Timber Building Kits	34
008	Pre-fabricated Joist Kits	24

ETAG followed by Number acc. to product category, e.g. ETAG 004: External Insulation Composite Systems with rendering

EAD is set up as follows:  
**ECNNNN-NN-PGSG**  
 EC - Product area  
 NNNN - subsequent number  
 NN - number of amendment  
 PGSG - EOTA classification related to intended use

**In addition to this list, anchors assessed in accordance with EAD 330196-00-0604 or ETAG 014 can be used provided that such anchors meet the following requirements:**

010	Self-Supporting translucent Roof Kits	22
011	Light Composite Wood-based Beams and columns	13
013	Post-tensioning Systems for the Pre-stressing of Structures	16
014	Plastic Anchors for ETICS	33
015	Three Dimensional Nailing plates	13
016	Composite Light weight Panels Self-supporting Composite Light Weight Panels	21

Source: www.eota.eu

# The ETA for ETICS

## II.a. General information



European Technical Assessment		ETA 17/0823 of 23/10/2017
<i>I General Part</i>		
<b>Technical Assessment Body is</b>	Technical and Test Institute for Construction Prague	
<b>Trade name of the construction product</b>	Knauf ETICS with MW	
<b>Product family to which the construction product belongs</b>	Product area code: External Thermal Insulation Composite Systems (ETICS) with rendering	
<b>Manufacturer</b>	ins Kn Ba 11080 Zemun Serbia	
<b>Manufacturing plant(s)</b>	Knauf Zemun d.o.o Batajnički drum 16b 11080 Zemun Serbia	
<b>This European Technical Assessment contains</b>	21 pages including 4 Annexes which form an integral part of this assessment. Annex No. 5 Control Plan contains confidential information and is not included in the European Technical Assessment when that assessment is publicly disseminated.	
<b>This European Technical Assessment is issued in accordance with regulation (EU) No. 305/2011 on the basis of</b>	ETAG 004, edition 2013, used as European Assessment Document (EAD)	
Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.		

Year of release ↑  
Subsequent number ↑

Insulation product ↑

European Technical Assessment		ETA 17/0824 of 23/10/2017
<i>I General Part</i>		
<b>Technical Assessment Body issuing the ETA:</b> Technical and Test Institute for Construction Prague		
<b>Trade name of the construction product</b>	Knauf ETICS with EPS	
<b>Product family to which the construction product belongs</b>	Product area code: 4 External Thermal Insulation Composite Systems (ETICS) with rendering insulation product - expanded polystyrene (EPS)	
<b>Manufacturer</b>	Knauf Zemun d.o.o Batajnički drum 16b 11080 Zemun Serbia	
<b>Manufacturing plant(s)</b>	Knauf Zemun d.o.o Batajnički drum 16b 11080 Zemun Serbia	
<b>This European Technical Assessment contains</b>	20 pages including 3 Annexes which form an integral part of this Assessment. Annex No. 4 Control Plan contains confidential information and is not included in the European Technical Assessment when that assessment is publicly disseminated.	
<b>This European Technical Assessment is issued in accordance with regulation (EU) No. 305/2011 on the basis of</b>	ETAG 004, edition 2013, used as European Assessment Document (EAD)	
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# The ETA for ETICS

## II.b. Specific information



### 1 Technical description of the kit

- Insulation product
- Adhesives
- (Anchors)
- Base coat
- Reinforcement
- Key coat
- Finishing coats
- Decorative coats
- Ancillary materials

Coverage and/or thickness is given for each product

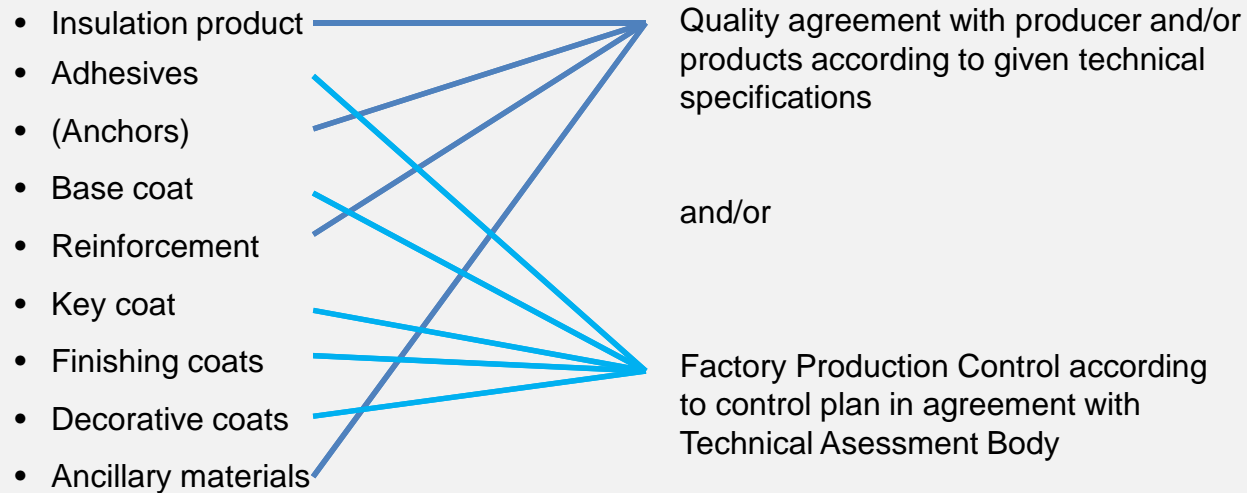
	Components	Coverage (kg/m <sup>2</sup> )	Thickness (mm)
Insulation products with associated methods of fixing	Mechanically fixed ETICS with anchors and supplementary adhesive (see Cl. 3.3.5 and Annex No. 2 for possible associations EPS/anchors) National application documents shall be taken into account.		
	<ul style="list-style-type: none"> <li>• Insulation product: EPS according to EN 13163 see Annex No. 1 for product characteristics</li> </ul>	/	50 - 250
	<ul style="list-style-type: none"> <li>• Supplementary adhesives: min. bonded surface: 40 %</li> <li>- <b>Styrokleber</b> - cement based powder requiring addition of water 0.25 l/kg</li> <li>- <b>Klebspachtel</b> - cement based powder requiring addition of water 0.25 l/kg</li> </ul>	5.0 (dry)	/
	<ul style="list-style-type: none"> <li>• Anchors see Annex No. 2 for individual product characteristics.</li> <li>• In addition to the following list. Other anchors can be used provided that they comply with the requirements introduced in the Annex No. 2.</li> </ul>		
	- <b>KOELNER TFIX-8P</b> plastic nailed-in anchors	ETA-13/0845	
	- <b>ejotherm STR U</b>	ETA-04/0023	
	- <b>ejotherm STR U 2G</b> plastic screw-in anchors		
	- <b>EJOT H1 eco</b>	ETA-11/0192	
	- <b>EJOT H3</b> plastic nail-in anchor	ETA-14/0130	
	- <b>KOELNER TFIX-8M</b> plastic nail-in anchor	ETA-07/0336	
- <b>WKRET-MET-LFno8</b> plastic nail-in anchor	ETA-06/0080		
- <b>fischer termoz 8 U</b> plastic screw-in anchor	ETA-02/0019		
- <b>fischer termoz PN 8</b> plastic nail-in anchor	ETA-09/0171		
- <b>fischer termoz CN 8</b> plastic nail-in anchor	ETA-09/0394		
- <b>termoz SV II ecotwist</b> plastic screw-in anchors	ETA-12/0208		
Base coat	<ul style="list-style-type: none"> <li>• <b>Klebspachtel</b> cement based powder requiring addition of water 0.22 l/kg</li> </ul>	6.0 (dry)	Minimal: 3.0 Maximal: 5.0

	Components	Coverage (kg/m <sup>2</sup> )	Thickness (mm)
Reinforcement	<ul style="list-style-type: none"> <li>• Standard mesh applied in single layer see Annex No. 3 for product characteristics:</li> <li>- <b>R 117 A101</b></li> <li>- <b>117S</b></li> <li>- <b>Kelteks Primafas 160</b></li> <li>- <b>FM-150-5x5 (SM-25F)</b></li> </ul>	/	/
	<ul style="list-style-type: none"> <li>- <b>Quarzgrund</b> - to be used mandatorily</li> <li>- ready to use liquid</li> </ul>	0.15 – 0.20	/
	<ul style="list-style-type: none"> <li>• Ready to use paste – acrylic based binder:</li> <li>- <b>Addi S</b> - grain structure (particle size 1.5; 2.0; 3.0 mm)</li> <li>- <b>Addi R</b> - ribbed structure (particle size 2.0; 3.0 mm)</li> </ul>	2.2 - 3.7	Regulated by particle size
	<ul style="list-style-type: none"> <li>• Powder – mineral based binder to be mixed with water in ratio 0.27 - 0.30 l/kg</li> <li>- <b>SP 260</b> - grain structure (particle size 1.5; 2.0 mm)</li> <li>- <b>RP 240</b> - ribbed structure (particle size 2.0; 2.5 mm)</li> </ul>	2.3 - 2.9	Regulated by particle size
Decorative coats	<ul style="list-style-type: none"> <li>• Ready to use liquid: mandatory use for mineral finishing coats</li> <li>- <b>Siliconharz EG Farbe</b></li> <li>- applied in one layer</li> </ul>	0.17 - 0.22 (l/m <sup>2</sup> )	/
Ancillary materials	Remain under the manufacturer's responsibility		

# The ETA for ETICS

## II.b. Specific information

### 1 Technical description of the kit





# The ETA for ETICS



## II.b. Specific information

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

- Intended use (Thermal insulation of buildings)
- Manufacturing
- Design and installation (according to technical documentation)
- Packaging, transport and storage (according to technical documentation)
- **Use, maintenance and repair**

#### 2.5 Use, maintenance and repair

The provisions made in this European Technical Assessment are based on an assumed working life of the ETICS of at least 25 years, provided that the requirements for the packaging, transport, storage, installation as well as appropriate use, maintenance and repair are met. The indication given on the working life cannot be interpreted as a guarantee given by the manufacturer or the Technical Assessment Body, but should only be regarded as a means for choosing the appropriate products in relation to the expected, economically reasonable working life of the works.

The finishing coat shall normally be maintained in order to fully preserve the ETICS performance.

Maintenance includes at least:

- visual inspection of the ETICS,
- repairing of localized damaged areas due to accidents,
- the aspect maintenance with products adapted and compatible with the ETICS (possibly after washing or ad hoc preparation).

Necessary repairs should be performed as soon as the need has been identified.

It is important to be able to carry out maintenance as far as possible using readily available products and equipment, without spoiling appearance. Only products which are compatible with the ETICS shall be used.

The information on use, maintenance and repair is given in the manufacturer's technical documentation.

It is the responsibility of the manufacturer(s) to ensure that this information is made know to the concerned people.

# The ETA for ETICS



## II.b. Specific information

### 3. Performance of the product

#### Safety in case of fire

Values like heat of combustion, organic content or flame retardant can easily be measured or given by the manufacturer and allow a quick classification if new products shall be included in the assessment.

#### 3.1.1 Reaction to fire (ETAG 004 - clause 5.1.2.1, EN 13501-1)

Table No. 2

Configuration	Heat of combustion	Flame retardant content	Euroclass according to EN 13501-1
Adhesive	Max 0.20 MJ/kg	No flame retardant	<b>B – s2, d0</b>
Boards of expanded polystyrene EPS Maximal density of 17 kg/m <sup>3</sup>	/	In quantity ensuring Euroclass E according to EN 13501-1	
Base coat render	Max 0.20 MJ/kg	No flame retardant	
Glass fibre mesh	Max 9.50 MJ/kg	No flame retardant	
Finishing coats	Max 3.11 MJ/kg	No flame retardant	

# The ETA for ETICS

## II.b. Specific information

### 3. Performance of the product

#### 3.1 Safety in case of fire

#### EN 13501-1



Table 1 — Classes of reaction to fire performance for construction products excluding floorings

Class	Test method(s)	Classification criteria	Additional classification
A1	prEN ISO 1182 <sup>(1)</sup> and prEN ISO 1716	$\Delta T \leq 30 \text{ }^\circ\text{C}$ ; and $\Delta m \leq 50 \%$ ; and $t_f = 0$ (i.e. no sustained flaming)	-
		$PCS \leq 2,0 \text{ MJ/kg}$ <sup>(1)</sup> and $PCS \leq 2,0 \text{ MJ/kg}$ <sup>(2)</sup> <sup>(2a)</sup> and $PCS \leq 1,4 \text{ MJ/m}^2$ <sup>(3)</sup> and $PCS \leq 2,0 \text{ MJ/kg}$ <sup>(4)</sup>	-
A2	prEN ISO 1182 <sup>(1)</sup> or prEN ISO 1716	$\Delta T \leq 50 \text{ }^\circ\text{C}$ ; and $\Delta m \leq 50 \%$ ; and $t_f \leq 20\text{s}$	-
	and EN 13823	$PCS \leq 3,0 \text{ MJ/kg}$ <sup>(1)</sup> and $PCS \leq 4,0 \text{ MJ/m}^2$ <sup>(2)</sup> and $PCS \leq 4,0 \text{ MJ/m}^2$ <sup>(3)</sup> and $PCS \leq 3,0 \text{ MJ/kg}$ <sup>(4)</sup>	-
		$FIGRA \leq 120 \text{ W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7,5 \text{ MJ}$	Smoke production <sup>(5)</sup> and Flaming droplets/particles <sup>(6)</sup>
B	EN 13823 and prEN ISO 11925-2 <sup>(8)</sup> ; Exposure = 30 s	$FIGRA \leq 120 \text{ W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7,5 \text{ MJ}$	Smoke production <sup>(5)</sup> and Flaming droplets/particles <sup>(6)</sup>
		$F_s \leq 150\text{mm}$ within 60 s	
C	EN 13823 and prEN ISO 11925-2 <sup>(8)</sup> ; Exposure = 30 s	$FIGRA \leq 250 \text{ W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 15 \text{ MJ}$	Smoke production <sup>(5)</sup> and Flaming droplets/particles <sup>(6)</sup>
		$F_s \leq 150\text{mm}$ within 60 s	
D	EN 13823 and prEN ISO 11925-2 <sup>(8)</sup> ; Exposure = 30 s	$FIGRA \leq 750 \text{ W/s}$	Smoke production <sup>(5)</sup> and Flaming droplets/particles <sup>(6)</sup>
		$F_s \leq 150\text{mm}$ within 60 s	
E	prEN ISO 11925-2 <sup>(8)</sup> ; Exposure = 15 s	$F_s \leq 150\text{mm}$ within 20 s	Flaming droplets/particles <sup>(7)</sup>

# The ETA for ETICS



## II.b. Specific information

### 3. Performance of the product

#### 3.1 Safety in case of fire

#### SBI Test and large scale tests

SBI test is simulating a burning item in a corner.



Source: <https://www.vttexpertservices.com>

# The ETA for ETICS



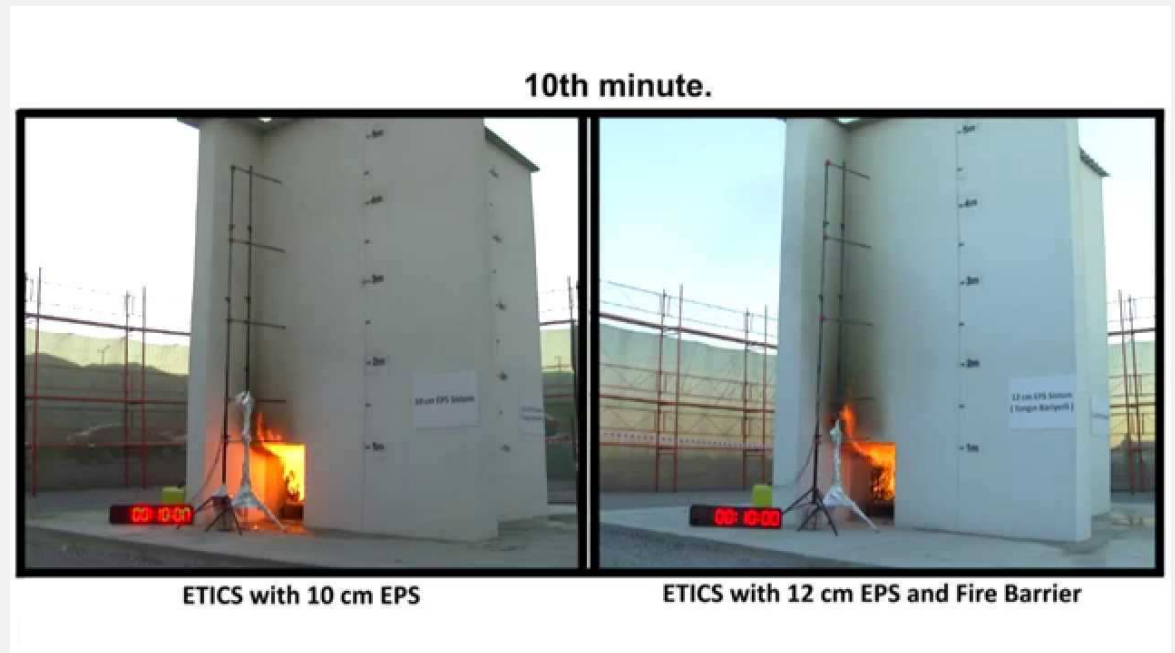
## II.b. Specific information

### 3. Performance of the product

#### 3.1 Safety in case of fire

##### SBI Test and large scale tests

Different large scale tests in each country. These tests are not used for average ETICS, but can be necessary e.g. for high thickness of the insulation layer.



Source: [www.youtube.com](http://www.youtube.com) RMI Türkiye

# The ETA for ETICS

## II.b. Specific information

### 3. Performance of the product

Hygiene, health and environment

#### Water absorption

(ETAG 004, clause 5.1.3.1)

to determine whether or not a rendering system has to go through a freeze-thaw-test



		Water absorption after 24 hours	
		< 0.5 kg/m <sup>2</sup>	≥ 0.5 kg/m <sup>2</sup>
Rendering system: Base coat Klebspachtel + finishing coats indicated hereafter:	Addi S Addi R	X	
	SP 260	X	
	RP 240	X	

#### 3.2.1.1 Hygrothermal behaviour

Pass (without defects).

#### 3.2.1.2 Freeze-thaw behaviour

Freeze-thaw resistant - according to the water absorption test result.

# The ETA for ETICS



## II.b. Specific information

### 3. Performance of the product

Hygiene, health and environment

Water tightness



#### Hygrothermal behaviour

(ETAG 004 clause 5.1.3.2.1)

simulates the hygrothermal stress caused by summer, rain, winter, etc. in an estimated lifetime of 25 years.

Freeze-thaw-test:

30 cycles, each of 8 hours water immersion + 16 hours of freezing.

Method subjects:	No. of cycles: Time:	Cycle s time:	Conditions:	Phase time:
Heat-rain cycles 	80 cycles 20 days	6 hours	1. +70°C ± 5/10 2. +15°C ± 5 water 3. +23°C ± 5 Heating Spraying with Drainage	3 hours 1 hours 2 hours
Heat-cold cycles 	5 cycles 5 days	24 hours	1. +50°C ± 5 2. -20°C ± 5 Heating Cooling	8 hours 16 hours

# The ETA for ETICS



## II.b. Specific information

### 3. Performance of the product

Hygiene, health and environment

Water tightness

**Hygrothermal behaviour**  
(ETAG 004 clause 5.1.3.2.1)

Test rig according to ETAG 004





# The ETA for ETICS



## II.b. Specific information

### 3. Performance of the product

Hygiene, health and environment

Water tightness

### **Hygrothermal behaviour**

(ETAG 004 clause 5.1.3.2.1)

Test chambers with test rigs



# The ETA for ETICS



## II.b. Specific information

### 3. Performance of the product

Hygiene, health and environment

Water tightness

#### **Hygrothermal behaviour**

(ETAG 004 clause 5.1.3.2.1)

Inside of the test chambers with irrigation unit

Possible temperature ranges from

-50°C to +90°C at all possible relative humidities



# The ETA for ETICS



## II.b. Specific information

### 3. Performance of the product

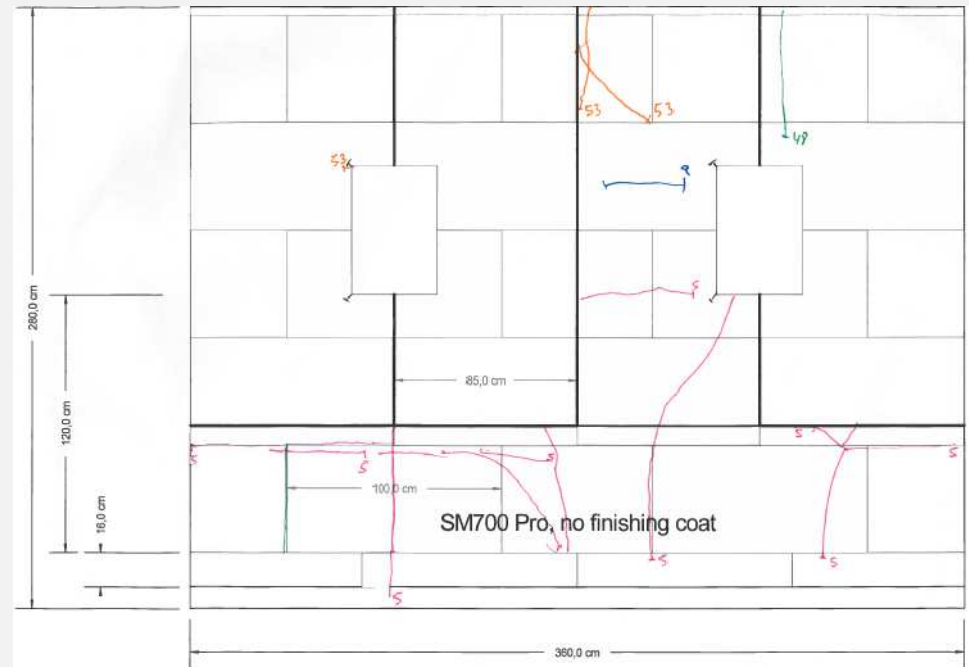
Hygiene, health and environment

Water tightness

#### Hygrothermal behaviour

(ETAG 004 clause 5.1.3.2.1)

During the hygrothermal cycles the ETICS is inspected every 24 hours to record damages like cracks, blistering or peeling.



# The ETA for ETICS



## II.b. Specific information

### 3. Performance of the product

Hygiene, health and environment

#### Impact resistance

(ETAG 004, clause 5.1.3.3)

It can help to choose the right rendering system for the right purpose, e.g. category III for a single-family house and category I or II for a school yard or a shopping center.

Test performed with steel ball dropped from defined heights.

Table 8: Use examples

Category	Description of possible uses
I	A zone readily accessible at ground level to the public and vulnerable to hard body impacts but not subjected to abnormally rough use.
II	A zone liable to impacts from thrown or kicked objects, but in public locations where the height of the ETICS will limit the size of the impact; or at lower levels where access to the building is primarily to those with some incentive to exercise care.
III	A zone not likely to be damaged by normal impacts caused by people or by thrown or kicked objects.

# The ETA for ETICS



## II.b. Specific information

### 3. Performance of the product

Safety and accessibility in use

#### Bond strength

to determine whether or not the rendering system can withstand wind suction during its lifetime and even after an estimated lifetime of 25 years.

#### 3.3.1 Bond strength between base coat and insulation product (ETAG 004 - clause 5.1.4.1.1)

- Initial state: bond strength  $\geq 0.080$  MPa and a cohesive failure in the insulation product
- After hygrothermal cycles: bond strength  $\geq 0.080$  MPa and cohesive failure in the insulation product

#### 3.3.2 Bond strength between adhesive and substrate / insulation product (ETAG 004 - clauses 5.1.4.1.2, 5.1.4.1.3)

Table No. 6

		Initial state	48 hours immersion in water + 2 hours. 23°C/50% RH	48 hours immersion in water + 7 days 23°C/50% RH
Klebspachtel M	Concrete	$\geq 0.25$ MPa	$\geq 0.08$ MPa	$\geq 0.25$ MPa
	MW TR10 FKD-S Thermal FKD-N Thermal 2	$< 0.08$ MPa and failure in insulation product	$< 0.03$ MPa and failure in insulation product	$< 0.08$ MPa and failure in insulation product

# The ETA for ETICS



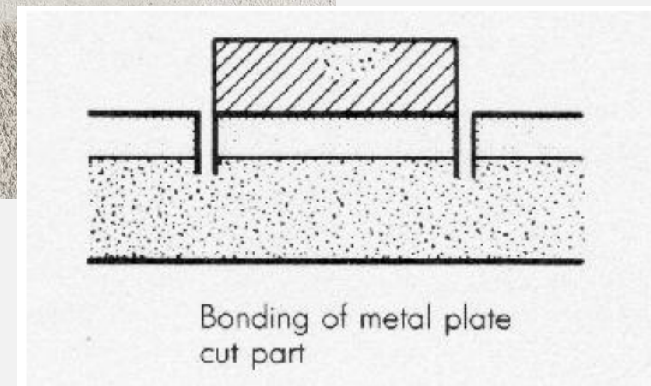
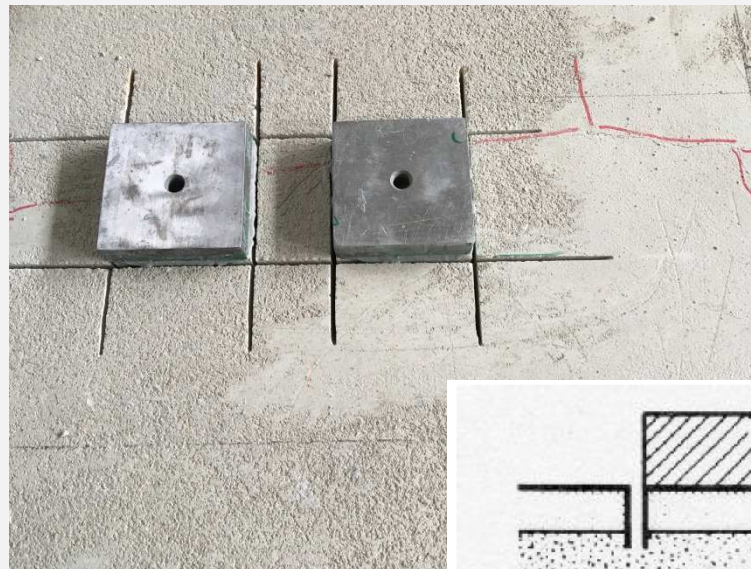
## II.b. Specific information

### 3. Performance of the product

Safety and accessibility in use

#### **Bond strength**

to determine whether or not the rendering system can withstand wind suction during its lifetime and even after an estimated lifetime of 25 years.





# The ETA for ETICS



## II.b. Specific information

### 3. Performance of the product

Safety and accessibility in use

#### **Bond strength**

The ETA also gives information, whether a cohesive and/or adhesive rupture has occurred.



# The ETA for ETICS

## II.b. Specific information

### 3. Performance of the product

Safety and accessibility in use

#### Wind load resistance

to determine how many anchors per square meter are necessary following national requirements.

This information is usually given by the manufacturer in the technical documentation.



**Bestimmung der Breite der Randzone A**

Breite Randzone A:  
1/5 e bzw. 1/5 f

e = 2 x Höhe oder e = Länge  
f = 2 x Höhe oder f = Breite  
Maßgebend ist der jeweils kleinere Wert.

P321.de Knauf WARM-WAND Basis

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**Daten für die Planung**

**Verdübelung**

**Dübelbemessung – Vereinfachtes Verfahren (Fortsetzung)**

**Verdübelung unter dem Gewebe**

Tabelle 1: EPS, Dämmstoffdicke d ≥ 40 mm

Windzone	Region	Mindestanzahl Dübel je m <sup>2</sup> nach Systemzulassung Z-33.43-82 Lastaufnahme Dübel N <sub>ex</sub> ≥ 0,45 kN/Dübel Maximale Windlast WDVS: 2,20 kN/m <sup>2</sup> Windlasten gemäß DIN EN 1991-1-4 und DIN EN 1991-1-4/NA, vereinfachtes Verfahren					
		Gebäudehöhe 0 bis 10 m		0 bis 18 m		0 bis 25 m	
		Randzone A	Zone B	Randzone A	Zone B	Randzone A	Zone B
1	Binnenland	6	4 <sup>1)</sup>	8	6	10	8
	Küste und Inseln der Ostsee	10	8	10	10	14	10
2	Binnenland	8	6	10	8	10	8
	Küste und Inseln der Ostsee	10	8	10	10	14	10
3	Binnenland	10	8	10	10	14	10
	Küste und Inseln der Ostsee	10	10	14	10	14	10
4	Binnenland	10	10	14	10	14	10
	Küste der Nord- und Ostsee und Inseln der Ostsee	14	10	14	10	–	–
	Inseln der Nordsee	14	10	–	–	–	–



# The ETA for ETICS



## II.b. Specific information

### 4. Assessment and verification of constancy of performance (AVCP) system applied

Basically information for the manufacturer on the range of factory production control (FPC) and further testing as well as for the certification body on the range of initial inspection of the manufacturing plant, continuous surveillance of the FPC and audit-testing.

Assessed products are therefor under constant surveillance and the quality is permanently controlled.

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

According to the European Commission decision 97/556/EC amended by the European Commission decision 2001/596/EC, the AVCP systems 1 and 2+ are valid (further described in Annex V to Regulation (EU) No. 305/2011).

Table No. 11

Product(s)	Intended use(s)	Level(s) or class(es) (Reaction to fire)	System(s)
External thermal insulation composite systems/kits (ETICS) with rendering	In external wall subject to fire regulations	A1 <sup>(1)</sup> , A2 <sup>(1)</sup> , B <sup>(1)</sup> , C <sup>(1)</sup>	1
		A1 <sup>(2)</sup> , A2 <sup>(2)</sup> , B <sup>(2)</sup> , C <sup>(2)</sup> , D, E, (A1 to E) <sup>(3)</sup> , F	2+
	In external wall not subject to fire regulations	Any	2+

<sup>(1)</sup> 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)

<sup>(2)</sup> Products/materials not covered by footnote (1)

<sup>(3)</sup> Products/materials that do not require to be tested for reaction to fire (e.g. Products/materials of Classes A1 according to Commission Decision 96/603/EC)

# The ETA for ETICS



## II.b. Specific information

4. Assessment and verification of constancy of performance (AVCP) system applied

further

5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

and

Annex I, II and III providing material properties for the insulation products, the reinforcement mesh and the anchors that can be used in this ETICS

# The ETA for ETICS

## III. Summary and Outlook



### DECLARATION OF PERFORMANCE

Nr. 0010\_Warm-Wand\_MW\_SM700\_Pro\_2014-08-13

- Unique identification code of the product-type: **ETA-13/0542**
- Intended use/es: **External Thermal Insulation Composite System with rendering for the use as external insulation of building walls**
- Manufacturer: **Knauf Gips KG, Am Bahnhof 7, D-97346 Iphofen, Germany  
Tel. +499323 31-0, Fax +499323 31-277, E-Mail Zentrale@knauf.de**
- System/s of AVCP: **System 1 for reaction to fire and 2+ for the other essential characteristics**
- European Assessment Document: **ETAG 004: 2000-03**  
European Technical Assessment: **ETA 13/0542**  
Technical Assessment Body: **DIBT Deutsches Institut für Bautechnik**  
Notified body/es: **TAB Germany, NB 0785 (FPC), NB 0800 (Reaction to fire)**
- Declared performance/s:

Essential characteristics	Performance
Reaction to fire (with finishing coats Noblo, Noblo Filz 1.0, Noblo Filz 1.5, SP260, RP240, Carrara, SM700 Pro, Conni S/R, Addi S/R)	A2-s1,d0 A2-s2,d0
Reaction to fire (with finishing coat Kati S)	
Water absorption (base coat with finishing coat) after 24 h	< 0,5 kg/m <sup>2</sup>
Hygrothermal behaviour	pass
Freeze/thaw behaviour	pass
Water vapour – equivalent air thickness s <sub>d</sub>	≤ 1,0 m
Wind load resistance Failure loads where profiles are applied (MW panels thickness ≥ 60 mm, tensile strength perpendicular to the faces ≥ 14 kPa; horizontal profiles with a vertical distance of 625 mm, fixed every 30 cm and vertical connection profiles) - No additional anchors in MW panel - Two additional anchors per MW panel, plate diameter Ø ≥ 60 mm, mounted on the MW panel surface	≥ 1200 N ≥ 2200 N
Wind load resistance Failure loads where anchors are applied (Plate diameter of anchor Ø ≥ 60 mm, mounted on the insulation panels surface; MW panels thickness ≥ 60 mm, tensile strength perpendicular to the faces ≥ 14 kPa) - Anchors not placed at panel joints (R <sub>SM,we</sub> ), (Static Foam Block Test) - Anchors placed at panel joints (R <sub>SM,we</sub> ), (Static Foam Block Test) - Anchors not placed at panel joints (R <sub>SM,we</sub> ), (Pull-through test, dry conditions) - Anchors not placed at panel joints (R <sub>SM,we</sub> ), (Pull-through test, wet conditions)	≥ 650 N ≥ 590 N ≥ 640 N ≥ 360 N
Wind load resistance Failure loads where anchors are applied (Plate diameter of anchor Ø ≥ 90 mm/ Ø ≥ 140 mm, mounted on the insulation panels surface; MW panels thickness ≥ 80 mm, tensile strength perpendicular to the faces ≥ 5 kPa) - Anchors not placed at panel joints (R <sub>SM,we</sub> ), (Static Foam Block Test) - Anchors placed at panel joints (R <sub>SM,we</sub> ), (Static Foam Block Test) - Anchors not placed at panel joints (R <sub>SM,we</sub> ), (Pull-through test, dry conditions) - Anchors not placed at panel joints (R <sub>SM,we</sub> ), (Pull-through test, wet conditions)	≥ 480 N/ ≥ 560 N ≥ 360 N/ ≥ 440 N ≥ 540 N/ NPD ≥ 400 N/ NPD



Essential characteristics (continuation)	Performance
Wind load resistance Failure loads where anchors are applied (Plate diameter of anchor Ø ≥ 140 mm, mounted on the insulation panels surface; MW Lamella thickness ≥ 60 mm, tensile strength perpendicular to the faces ≥ 80 kPa) - Anchors not placed at panel joints (R <sub>SM,we</sub> ), (Pull-through test, dry conditions) - Anchors not placed at panel joints (R <sub>SM,we</sub> ), (Pull-through test, wet conditions) - Anchors placed at panel joints (R <sub>SM,we</sub> ), (Static Foam Block Test)	≥ 620 N ≥ 510 N ≥ 710 N
Thermal resistance	depending on system configuration
Impact resistance	Category I/II (depending on system configuration)
Bond strength between base coat and insulation product (MW panel)	< 0,08 Mpa (cohesive rupture)
Bond strength between adhesive and substrate	≥ 0,25 Mpa
Bond strength between adhesive and insulation product (MW lamella)	≥ 0,08 Mpa
Bond strength after ageing	< 0,08 Mpa (cohesive rupture)
Dangerous substances	NPD

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:  
ppa. Dr. Markus Blebl  
(Head of Research & Development Knauf Group)

At Iphofen, on 2014-07-23

# The ETA for ETICS



## III. Summary and Outlook

The ETA is used as the basis for the Declaration of Performance (DoP) and the CE-mark of the ETICS.

Both DoP and CE-mark are the declaration of the manufacturer, that all measures are taken in order to ensure a continuous quality of the product.

The ETAG 004 is the basis for the assessment of an ETICS as long as there is no harmonised technical european standard for the assessment. For detailed information, ETAG 004 can be downloaded from [www.eota.eu](http://www.eota.eu) .

A European standard for ETICS is in progress, the date of release is not yet fixed. With this standard, the manufacturer will be able to declare the performance of his product without a Technical Assessment Body, nevertheless the measures to be taken to ensure quality will be the same or even higher.

Thank you for your attention!