

## European Technical Assessment

**ETA 19/0062  
of 02/08/2019**

*English version prepared by Itecons*

### General Part

**Technical Assessment Body issuing the ETA:** Itecons - Instituto de Investigação e Desenvolvimento Tecnológico para a Construção, Energia, Ambiente e Sustentabilidade

**Trade name of the construction product** ISOVIT Cork Wood

**Product family to which the construction product belongs** External Thermal Insulation Composite Systems with renderings on expanded cork for the use on timber frame buildings

Product area code: 04

**Manufacturer** SECIL MARTINGANÇA, S.A.  
Rua do Mercado  
Gândara  
2405-017 Maceira  
Leiria  
Portugal  
[www.secilargamassas.pt](http://www.secilargamassas.pt)

**Manufacturing plant(s)**

Rua da Brejoeira, s/n  
2445-414 Pataias  
Alcobaça  
Portugal

Av. Da Indústria  
Est. Vasa Borracha – Pau Queimado  
2870-635 Montijo  
Portugal

**This European Technical Assessment contains** 14 pages

**This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of** EAD 040089-00-0404 – ETICS WITH RENDERINGS FOR THE USE ON TIMBER FRAME BUILDINGS, edition June 2016

**Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.**

**Communication of this European Technical Assessment, including transmission by electronic means, shall be in full (excepted the confidential Annex(es) referred to above). However, partial reproduction may be made, with the written consent of the issuing Technical Assessment Body. Any partial reproduction has to be identified as such.**

## Specific parts

### 1. Technical description of the product

This product is an ETICS (External Thermal Insulation Composite System) with rendering for the use on timber frame buildings – a kit comprising components which are factory-produced by manufacturer or component suppliers. The ETICS manufacturer is ultimately responsible for all components of ETICS specified in this ETA.

The ETICS kit comprises a prefabricated insulation product of Expanded Insulation Corkboard (ICB) to be bonded with supplementary mechanical fixings onto a wall. The methods of fixing and the relevant components of the ETICS are specified in Table 1. The insulation product is faced with a rendering system consisting of one or two layers (site applied), one of which contains reinforcement. The rendering is applied directly to the insulation panels, without any air gap or disconnecting layer.

The ETICS may include special fittings (e.g. base profiles, corner profiles ...) to treat details of ETICS (connections, apertures, corners, parapets, sills ...). The assessment and performance of these components is not addressed in this ETA, however the ETICS manufacturer is responsible for adequate compatibility and performance within the ETICS when the components are delivered as a part of the kit.

**Table 1:** Components of the ETICS

Component	Description		Coverage (kg/m <sup>2</sup> )	Thickness (mm)
Insulation product	ISOVIT Painel ICB		---	40 to 100
	Expanded insulation corkboard (ICB) Panels with 1000 mm x 500 mm and bulk density ≤ 130 kg/m <sup>3</sup> , with CE marking			
Adhesive	ISOVIT E-CORK (use a double layer) Mortar based on mixed binders, cork aggregates and natural hydraulic lime, with CE marking		5.5 to 6.0	---
Base coat	ISOVIT E-CORK Mortar based on mixed binders, cork aggregates and natural hydraulic lime, with CE marking	with standard glass fibre mesh	6.0 to 8.0	---
		with reinforced glass fibre mesh	10.0 to 13.0	
Finishing coat 1	REABILITA CAL AC Mortar composed by natural hydraulic lime and siliceous and calcareous aggregates, with CE marking		2.0 to 3.5	2.0 to 3.0
	ISOVIT AD 25 Key coat based on silicate watery dispersion		0.2 to 0.4	---

Component	Description	Coverage (kg/m <sup>2</sup> )	Thickness (mm)
	ISOVIT REV SP Paint based on silicate watery dispersion	0.3 to 0.5	
Finishing coat 2	ISOVIT AD 26 Anti-alkaline based on acrylic resin and mineral fillers	0.25 to 0.3	---
	ISOVIT REV SL Silicate based product, with addition of siloxane resins and marble granules	1.0 to 2.0	---
Glass fibre mesh	ISOVIT Rede 160 Standard mesh 160 g/m <sup>2</sup> (glass fibre mesh with mesh size 5.0 mm x 4.0 mm)	---	---
	ISOVIT Rede 343 Reinforced mesh 330 g/m <sup>2</sup> (glass fibre mesh with mesh size 6.0 mm x 6.0 mm)	---	---
Anchors (supplementary mechanical fixings)	ISOVIT Bucha Madeira Plastic anchor with metallic screw	---	---
Ancillary components	Remain under the ETA holder responsibility		

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

The ETICS are designed to give the timber frame building wall to which they are applied additional thermal insulation and protection from effects of weathering.

The ETICS can be used on new or existing (retrofit) vertical timber frame building walls. They can also be used on horizontal or inclined surfaces which are not exposed to precipitation.

The surface for the application of ETICS can be a board substrate (wood based panels, solid wood panels, plasterboards, gypsum bonded boards, cement bonded boards, etc.).

The board substrate must be suitable for humid conditions as specified in EN 13986.

ETICS are non-load-bearing construction elements. They do not contribute directly to the stability of the timber frame building wall on which they are installed. The verification of the structural capacities of the wall and their suitability for the application of ETICS shall be in accordance with ETAG 007 (and its conversion into EAD), clause 5.1 using calculation methods (EN 1995-1-1, Eurocode 5 Part 1-1, etc.) as well as verifications by testing (EN 380, EN 594, EN 595, EN 596, etc.) where the load bearing capacity is unable to calculate.

The ETICS can contribute to the durability of a timber frame building by providing enhanced protection from the effects of weathering.

ETICS are not intended to ensure the air tightness of the timber frame building structure. The timber frame building wall as such has therefore to be airtight to:

- a) Reduce the thermal transmittance of the wall
- b) Avoid interstitial condensation due to convection.

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.

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

#### **3.1 Mechanical resistance and stability (BWR 1)**

Not relevant.

#### **3.2 Safety in case of fire (BWR 2)**

##### **3.2.1 Reaction to fire of the ETICS**

The reaction to fire was tested according to ISO 11925-2:2010, ISO 11925-2:2010/Cor1:2011 and EN 13823:2010+A1:2014 and classified according to EN 13501-1:2007+A1:2009.

The ISOVIT Cork Wood system meets the requirements of B-s1, d0.

Note: A European reference fire scenario has not been laid down for facades. In some Member States, the classification of ETICS according to EN 13501-1:2007+A1:2009 might not be sufficient for the use in facades. An additional assessment of ETICS according to national provisions (e.g. on the basis of large scale test) might be necessary to comply with Member State regulations, until the existing European classification system has been completed.

#### **3.3 Hygiene, health and the environment of ETICS and its components (BWR 3)**

##### **3.3.1 Water absorption of the ETICS (capillarity test)**

The results of the water absorption test, performed according to section 2.2.2.1 of EAD 040089-00-0404, regarding the base coat (system without finishing) and of the rendering (system with finishing), are presented in Table 2, verify the following condition:

- Water absorption after 1 hour  $<1 \text{ kg/m}^2$
- Water absorption after 24 hours  $<0.5 \text{ kg/m}^2$

The system is therefore judged to have satisfactory performance concerning water absorption.

**Table 2:** Water absorption (capillary test)

System specimens	Water absorption after 1h		Water absorption after 24 h	
	<1.0 kg/m <sup>2</sup>	≥1.0 kg/m <sup>2</sup>	<0.5 kg/m <sup>2</sup>	≥0.5 kg/m <sup>2</sup>
ICB + base coat + standard mesh	X		X	
ICB + base coat + standard mesh + finishing coat 1	X		X	
ICB + base coat + standard mesh + finishing coat 2	X		X	

### 3.3.2 Water tightness of ETICS: Hygrothermal Behaviour

Hygrothermal cycles have been performed on a rig, according to section 2.2.2.2 of EAD 040089-00-0404. None of the following defects occurred during the testing:

- blistering or peeling of any finishing;
- failure or cracking associated with joints between insulation product boards or profiles used in the system;
- detachment of render;
- cracking allowing penetration to the insulation layer.

This ETICS is therefore assessed resistant to climate cycles.

### 3.3.3 Water tightness of ETICS: Freeze-thaw behaviour

The results of water absorption test of the system with and without finishing, presented in Table 2, verify the following condition:

- Water absorption after 24 hours < 0.5 kg/m<sup>2</sup>

This system is therefore assessed as freeze/thaw resistant without further testing.

### 3.3.4 Water tightness: Moisture content and gradient

To assess the moisture content and gradient climate cycles, tests have been performed in a climatic chamber, according to section 2.2.2.4 of EAD 040089-00-0404. None of the following defects occurred during the testing:

- Cracking on the surface finish;
- Blistering, peeling detachment or loss of adhesion.

### 3.3.5 Water tightness: Water penetration of the ETICS

For the verification of the water penetration the tests were carried out in accordance with EN 12865. The results of the overall rating and use category for ISOVIT Cork Wood are shown in Table 3.

**Table 3:** Overall rating for ISOVIT Cork Wood water tightness

Description	D <sub>r test</sub>	D <sub>f</sub>	I <sub>f</sub>	Maintenance, M <sub>f</sub>	Overall rating	Use category
Insulated render system with the render finish as the sole protection against water ingress. A test has indicated the system is suitable for use in exposed conditions.	4	10	1	1	40	Moderate with increased maintenance and inspection

D<sub>r test</sub> – Driven rain grade; D<sub>f</sub> – Detail factor; I<sub>f</sub> – Installation factor; M<sub>f</sub> – Maintenance factor

### 3.3.6 Water vapour permeability of the ETICS

Table 4 presents the resistance to water vapour diffusion of rendering system (base coat and finishing coat) for the system configuration, expressed by the equivalent air thickness. Tests were performed according to section 2.2.2.6 of EAD 040089-00-0404.

**Table 4:** Equivalent air thickness

System specimens	Equivalent air thickness (m)
Base coat + standard mesh + finishing coat 1	0.2
Base coat + standard mesh + finishing coat 2	2.7

## 3.4 Safety and accessibility in use (BWR 4)

### 3.4.1 Bond strength

#### 3.4.1.1 Base coat and insulation product

Tests were performed on the system ISOVIT Cork Wood, according to section 2.2.3.1 of EAD 040089-00-0404. The results at initial state are summarized in Table 5.

**Table 5:** Bond strength between base coat and insulation product at initial state

System	Bond strength (initial state)
ICB + base coat + standard mesh	0.05 MPa (Cohesive failure – 100% rupture in the insulation product)

Tests were performed on the system ISOVIT Cork Wood, after hygrothermal cycles. The results are summarized in Table 6.

**Table 6:** Bond strength between base coat and insulation product after hygrothermal cycles

System	Bond strength (after ageing)
ICB + base coat + standard mesh	0.05 MPa (Cohesive failure – 100% rupture in the insulation product)
ICB + base coat + reinforced mesh	0.05 MPa (Cohesive failure – 100% rupture in the insulation product)

System	Bond strength (after ageing)
ICB + base coat + standard mesh + finishing coat 1	0.05 MPa (Cohesive failure – 100% rupture in the insulation product)
ICB + base coat + reinforced mesh + finishing coat 1	0.05 MPa (Cohesive failure – 100% rupture in the insulation product)
ICB + base coat + standard mesh + finishing coat 2	0.06 MPa (Cohesive failure – 100% rupture in the insulation product)
ICB + base coat + reinforced mesh + finishing coat 2	0.05 MPa (Cohesive failure – 100% rupture in the insulation product)

### 3.4.1.2. Adhesive and substrate

Tests were performed on samples of substrate faced with adhesive product, according to section 2.2.3.2 of EAD 040089-00-0404. The results are summarized in Table 7 for wood substrate and in Table 8 for wet conditions.

**Table 7:** Bond strength between adhesive and wood substrate

Specimen	Bond strength		
	Dry condition	After conditioning	
		7 days at 23 °C/95% RH	7 days at 23 °C/95% RH + 7 days drying 23 °C/50% RH
Adhesive + substrate (wood)	0.10 MPa (Adhesive failure – rupture between the substrate and the adhesive product)	0.08 MPa (Adhesive failure – rupture between the substrate and the adhesive product)	0.08 MPa (Adhesive failure – rupture between the substrate and the adhesive product)

**Table 8:** Bond strength between adhesive and substrate in wet conditions

Specimen	Bond strength		
	Initial state	After conditioning	
		48 h immersion in water + 2 h 23 °C/50% RH	48 h immersion in water + 7 days 23 °C/50% RH
Adhesive + concrete slab	0.42 MPa (Cohesive failure – 100% rupture in the adhesive product)	0.35 MPa (Cohesive failure – 100% rupture in the adhesive product)	1.04 MPa (Cohesive failure – 100% rupture in the adhesive product)

### 3.4.1.3. Adhesive and insulation product

Tests were performed on samples of insulation products with adhesive product, according to section 2.2.3.3 of EAD 040089-00-0404. The results are summarized in Table 9.



**Table 9:** Bond strength between adhesive and insulation product

Specimen	Bond strength		
	Initial state	After conditioning	
		48 h immersion in water + 2 h 23 °C/50% RH	48 h immersion in water + 7 days 23 °C/50% RH
ICB + adhesive	0.05 Mpa (Cohesive failure – 100% rupture in the insulation product)	0.04 MPa (Cohesive failure – 100% rupture in the insulation product)	0.06 MPa (Cohesive failure – 100% rupture in the insulation product)

### 3.4.2 Wind load resistance

The dynamic wind uplift test was carried out according to section 2.2.3.6.3 of EAD 040089-00-0404. The specimen was composed by insulation product ICB + base coat + standard mesh + finishing coat 1/2.

None of the following defects occurred during the testing:

- insulation panels break;
- delamination in the insulation product or between the insulation product and its facing;
- detachment of the rendering system;
- insulation panel pulled off a fastener;
- mechanical fastener torn out of the substrate;
- detachment of the insulation panel from the supporting structure.

So, no failure was observed at the maximum test suction of 4000 N. The admissible value of the characteristic resistance is therefore:  $R_k = 4.0$  kPa.

### 3.4.3 Impact resistance

The resistance to hard body impact (3 and 10 Joules) tests, performed according to section 2.2.3.19 of EAD 040089-00-0404 and carried out on samples of system composition, lead to the results presented in Table 10.

**Table 10:** Hard body impact resistance

System specimens	Hard body impact	Impact zone 1 – diameter [mm]	Impact zone 2 – diameter [mm]	Impact zone 3 – diameter [mm]
ICB + base coat + standard mesh <sup>15</sup>	10 Joules	42.0 cracks without reaching the insulation product	45.1 cracks without reaching the insulation product	37.6 cracks without reaching the insulation product
	3 Joules	17.2 superficial damages without cracks formation	18.8 superficial damages without cracks formation	19.4 superficial damages without cracks formation
ICB + base coat + reinforced mesh <sup>16</sup>	10 Joules	26.7 superficial damages without cracks formation	28.6 superficial damages without cracks formation	27.1 superficial damages without cracks formation
	3 Joules	15.4 superficial damages without cracks formation	14.6 superficial damages without cracks formation	16.3 superficial damages without cracks formation

System specimens	Hard body impact	Impact zone 1 – diameter [mm]	Impact zone 2 – diameter [mm]	Impact zone 3 – diameter [mm]
ICB + base coat + standard mesh + finishing coat 1 <sup>17</sup>	10 Joules	34.0 cracks without reaching the insulation product	33.1 cracks without reaching the insulation product	34.5 cracks without reaching the insulation product
	3 Joules	19.9 superficial damages without cracks formation	22.0 superficial damages without cracks formation	21.6 superficial damages without cracks formation
ICB + base coat + reinforced mesh + finishing coat 1 <sup>18</sup>	10 Joules	27.7 cracks without reaching the insulation product	23.1 cracks without reaching the insulation product	23.4 cracks without reaching the insulation product
	3 Joules	17.7 superficial damages without cracks formation	17.4 superficial damages without cracks formation	15.2 superficial damages without cracks formation
ICB + base coat + standard mesh + finishing coat 2 <sup>19</sup>	10 Joules	28.7 superficial damages without cracks formation	25.3 superficial damages without cracks formation	35.2 superficial damages without cracks formation
	3 Joules	20.8 superficial damages without cracks formation	20.1 superficial damages without cracks formation	20.8 superficial damages without cracks formation
ICB + base coat + reinforced mesh + finishing coat 2 <sup>20</sup>	10 Joules	23.9 superficial damages without cracks formation	33.2 superficial damages without cracks formation	29.4 superficial damages without cracks formation
	3 Joules	15.5 superficial damages without cracks formation	21.2 superficial damages without cracks formation	18.6 superficial damages without cracks formation

### 3.5 Protection against noise (BWR 5)

No performance determined.

### 3.6 Energy economy and heat retention (BWR 6)

#### 3.6.1 Thermal resistance

The additional thermal resistance  $R_{ETICS}$  provided by the ETICS to the substrate wall is calculated in accordance with EN ISO 6946 and EN ISO 10456 from the nominal value of the insulation products thermal resistance  $R_{insulation}$  given accompanied to the CE marking and from the thermal resistance of the rendering system  $R_{render}$  which is about 0.02 m<sup>2</sup>K/W.

$$R_{ETICS} = R_{insulation} + R_{render} \text{ [(m}^2\cdot\text{K)/W)]}$$

The thermal bridges caused by mechanical fixing devices influence the thermal transmittance of the entire wall and shall be taken into account using the following calculation:

$$U_c = U + \Delta U \text{ (W/m}^2\text{K)}$$

$U_c$ : corrected thermal transmittance (W/m<sup>2</sup>K) of the entire wall, including thermal bridges.

$U$ : thermal transmittance of the entire wall, including ETICS, without thermal bridges (W/m<sup>2</sup>K):

$$U = \frac{1}{R_i + R_{render} + R_{substrate} + R_{se} + R_{si}}$$

$R_i$ : thermal resistance of the insulation product;

$R_{render}$ : thermal resistance of the render [about 0.02 (m<sup>2</sup>.K)/W];

$R_{substrate}$ : thermal resistance of the substrate of the building (concrete, brick...) [(m<sup>2</sup>.K)/W];

$R_{se}$ : external superficial thermal resistance [(m<sup>2</sup>.K)/W];

$R_{si}$ : internal superficial thermal resistance [(m<sup>2</sup>.K)/W].

$\Delta U$ : correction term of the thermal transmittance for mechanical fixing devices

$$\Delta U = X_p * n + \sum \psi_i * l_i \text{ (for profiles)}$$

n: number of anchors (through insulation product) per m<sup>2</sup>;

$X_p$ : point thermal transmittance value of an anchor (W/K). See Technical Report nº25. If not specified in the anchors ETA, the following values apply:

- = 0.002 W/K for anchors with a plastic screw/nail, stainless steel screw/nail with the head covered by plastic material and for anchors with an air gap at the head of the screw/nail;
- = 0.004 W/K for anchors with a galvanized steel screw/nail with head covered by a plastic material;
- = 0.008 W/K for all other anchors (worst case);
- n – number of anchors per m<sup>2</sup>;
- $\psi_i$  – linear thermal transmittance value of the profile [W/(mK)]
- $l_i$  – length of the profile per m<sup>2</sup>.

The value of thermal resistance of the render system ( $R_{render}$ ) was considered as equal to 0.02 m<sup>2</sup>.°C/W according clause 2.2.5.1 of the EAD 040089-00-0404.

Table 11 presents the values of thermal resistance calculation for ISOVIT Cork Wood system (example of thicknesses between 40 mm to 100 mm).

**Table 11:** Thermal resistance values for ISOVIT Cork Wood system

ICB thickness (mm)	$R_{ETICS}$ [m <sup>2</sup> .°C/W]
40	1.02
60	1.52
80	2.02
100	2.52

### 3.7 Characteristics of the components

#### 3.7.1 Insulation product

Factory-prefabricated uncoated panels made of expanded cork (ICB) complying with the requirements of EN 13170:2012+A1:2015.

**Table 12:** ICB characteristics

Component	Trade name	Characteristics	Declared values and classes
Insulation product	ISOVIT PaineI ICB	Reaction to Fire / EN 13501-1	E (Thickness: 20 to 100 mm; Density: ≤ 130 kg/m <sup>3</sup> )
		Thermal conductivity (W/m.°C) / EN 12667	≤ 0.04
		Compressive stress at 10% deformation (kPa) / EN 826	≥ 100
		Tensile strength perpendicular to the faces (kPa) / EN 1607	≥ 50
		Bending strength (kPa) / EN 12089	≥ 130
		Dynamic stiffness (MN/m <sup>3</sup> ) EN 29052-1 / EN 29052-1	≤ 126
		Water vapour permeability / EN 12086	μ = 20
		Water absorption (kg/m <sup>2</sup> ) / EN 1609	≤ 0.5

### 3.7.2 Render

#### 3.7.2.1 Render strip tensile test

Tests, according to section 2.2.3.12 of EAD 040089-00-0404, were performed on samples for the assessment of the crack behaviour of the reinforced base coat by determination of the crack width distribution and the "characteristic crack width"  $W_{rk}$  at completed cracking. The results for the crack width distribution are summarized in Table 13 and Table 14.

**Table 13:** Crack width distribution at a render strain value of 0.8% – main side

Deformation		Crack width w (mm) / number of cracks for the relative elongation $\epsilon = 0.8\%$											
		w	No.	w	No.	w	No.	w	No.	w	No.	w	No.
Load direction	Warp	≤0.05	34	≤0.10	4	≤0.15	0	≤0.20	0	≤0.25	0	>0.25	0
			30		9		0		0		0		
			42		9		0		0		0		
	Weft	≤0.05	39	≤0.10	0	≤0.15	0	≤0.20	0	≤0.25	0	>0.25	0
			43		5		0		0		0		
			33		1		0		0		0		

**Table 14:** Crack width distribution at a render strain value of 0.8% – secondary side

Deformation		Crack width w (mm) / number of cracks for the relative elongation $\epsilon = 0.8\%$											
		w	No.	w	No.	w	No.	w	No.	w	No.	w	No.
Load direction	Warp	≤0.05	10	≤0.10	21	≤0.15	1	≤0.20	0	≤0.25	0	>0.25	0
			6		16		4		0		0		
			3		23		2		0		0		
	Weft	≤0.05	0	≤0.10	13	≤0.15	4	≤0.20	0	≤0.25	0	>0.25	0
			3		19		8		0		0		
			28		3		1		0		0		

The characteristic crack width  $W_{rk}$  [mm] at a render strain value of 0.8%, determined with simplified procedure (II) is showed in Table 15.

**Table 15:** Characteristic crack width  $W_{rk}$  [mm] at a render strain value of 0.8%

	Characteristic width of cracks $W_{rk}$ [mm] at render strain value of 0.8%			
	Main side of the test specimen		Secondary side of the test specimen	
	Warp direction	Weft direction	Warp direction	Weft direction
Base coat + Standard mesh	0.12	0.09	0.18	0.20

### 3.7.3 Glass fibre mesh

The characteristics of the glass fibre mesh are presented in Table 16.

**Table 16:** Glass fibre mesh characteristics

Component	Trade Name	Characteristics	Results
Standard mesh	ISOVIT Rede 160	Mass per unit area ( $g/m^2$ )	160
		Tensile strength after ageing (N/mm)	20 ( $\geq 20$ )
		Relative residual strength after ageing (%) <sup>1</sup>	61 ( $> 50$ )
		Mesh opening (mm)	5.0 x 4.1
Reinforced mesh	ISOVIT Rede 343	Mass per unit area ( $g/m^2$ )	330
		Tensile strength after ageing (N/mm)	38 ( $> 20$ )
		Relative residual strength after ageing (%) <sup>1</sup>	67 ( $> 50$ )
		Mesh opening (mm)	6.0 x 6.0

<sup>1</sup> Percentage of the strength in the as-delivered state

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

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

**Table 17:** AVCP Systems

Product(s)	Intended use(s)	Levels(s) or class(es) (Reaction to fire)	System(s)
External thermal insulation composite systems/kits with rendering (ETICS)	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 as 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 required to be tested for reaction to fire (e.g. products/materials of Classes A1 according to Commission Decision 96/603/EC).

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

The manufacturer shall exercise permanent internal control of production of concerned product. 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 ensure that the product is in conformity with this ETA.

The manufacturer may only use components stated in the technical documentation of this ETA including Control Plan. The incoming raw materials are subjected to verifications by the manufacturer before acceptance.

For the components of the ETICS which the manufacturer does not manufacture by himself, he shall make sure that factory production control carried out by the other manufacturers gives the guarantee of the components compliance with the ETA.

The factory production control shall be in accordance with the Control Plan which is a part of technical documentation of this European Technical Assessment. The control plan has been agreed between the manufacturer and Itecons and is laid down in context of the factory production control system operated by the manufacturer and deposited within Itecons. The results of factory production control shall be recorded and evaluated in accordance with the provisions of the control plan.

### **5.1 Other tasks for the manufacturer**

The manufacturer shall, on the basis of a contract, involve a body which is notified for the tasks referred to in section 4 in the field of ETICS in order to undertake the actions laid down in this clause. For this purpose, the control plan shall be handed over by the manufacturer to the notified bodies involved.

For initial type-testing of the ETICS and the components the results of the tests performed as part of the assessment for the ETA shall be used unless there are changes in the production line or plant. In such cases the necessary testing has to be agreed with Itecons.

The manufacturer shall make a declaration of performance, stating that the ETICS is in conformity with the provisions of this ETA.

Changes to the ETICS or the components or their production process should be notified to Itecons before the changes are introduced. Itecons will decide whether or not such changes affect the ETA and if so whether further assessment or alterations to the ETA shall be necessary.

### **5.2 Tasks for the Notified Body (bodies)**

#### **5.2.1 Initial inspection of factory and of factory production control**

The Notified Body shall ascertain that, in accordance with the Control Plan, the factory (in particular the employees and the equipment) and the factory production control are suitable to ensure continuous and orderly manufacturing of the components according to the specifications mentioned in this ETA.

### **5.2.2 Continuous surveillance, assessment and evaluation of factory production control**

Within the scope of continuous surveillance, assessment and evaluation of factory production control, the Notified Body (bodies) shall visit the factory at least once a year for surveillance. It has to be verified that the factory production control is maintained in suitable conditions.

These tasks shall be performed in accordance with the provisions laid down in the control plan.

The Notified Body (bodies) shall retain the essential points of its (their) actions referred to above and state the results obtained and conclusions drawn in a written report. The Notified Body involved by the manufacturer shall issue a certificate of conformity of the factory production control stating the conformity with the provisions of this ETA.

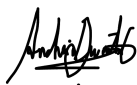
In cases where the provisions of the ETA and its control plan are no longer fulfilled, the Notified Body shall withdraw the certificate of conformity and inform Itecons without delay.

Issued in Coimbra, Portugal on 02.08.2019

By

Technical Assessment Unit of

Itecons – Instituto de Investigação e Desenvolvimento Tecnológico para a Construção, Energia,  
Ambiente e Sustentabilidade



*(Andreia Gil, Technical Assessment Unit Coordinator)*