ITeCons

Rua Pedro Hispano, s/n
3030-289 Coimbra - PT
00 351 239 78 89 49
itecons@itecons.uc.pt
www.itecons.uc.pt

Designated according to Article 29 of Regulation (EU) No 305/2011

Member of EOTA
www.eota.eu

European Technical Assessment

ETA 17/1014 of 30/01/2018

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	BARBOTHERM EPS BARBOTHERM ICB BARBOTHERM F EPS BARBOTHERM F MW
Product family to which the construction product belongs	External Thermal Insulation Composite Systems Product area code: 4
Manufacturer	Barbot – Indústria de Tintas, S.A. Rua da Palmeira, 240 4431-953 Vila Nova de Gaia Portugal
Manufacturing plant(s)	Rua da Palmeira, 240 4431-953 Vila Nova de Gaia Portugal
	Rua dos Borneiros, 466 4410-295 Canelas – Vila Nova de Gaia Portugal
This European Technical Assessment contains	15 pages
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	ETAG 004 used as European Assessment Document (EAD), edition February 2013, *External Thermal Insulation Composite Systems (ETICS) with rendering*

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 - a kit comprising components which are factory-produced by the 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 polystyrene (EPS), or expanded cork agglomerate boards (ICB) or mineral wool (MW) to be bonded with supplementary mechanical fixings onto a wall. The methods of fixing and the relevant components of the ETICS are specified in the 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 insulating panels, without any air gap or disconnecting layer.

Note: In the ETICS shall be used only one type of insulation, either EPS, ICB or MW, but not both on the same site.

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^2)	Thickness (mm)
Insulation products	Expanded polystyrene (EPS) with CE marking.		---	40
	Expanded cork agglomerate (ICB) with CE marking.		---	40
	Mineral wool (MW) with CE marking.		---	50
Adhesive 1	Massa Barbotherm Mortar based on water-based copolymers, fillers and specially selected aggregates.		4.0 to 6.0	---
Adhesive 2	Massa Barbotherm F Fiber-reinforced mortar composed by cement, mineral loads, resin and specific additives.		5.0 to 8.0	---
Base Coat 1	Massa Barbotherm Mortar based on water-based copolymers, fillers and specially selected aggregates.	with standard glass fibre mesh	4.0 to 6.0	4.0 to 5.0
		with standard and reinforced glass fibre mesh		
Base Coat 2	Massa Barbotherm F Fiber-reinforced mortar composed by cement, mineral loads, resin and specific additives.		5.0 to 8.0	4.0 to 5.0
Key coat	Barboprimer Primer / sealant aqueous formulated with high alkali resistance acrylic emulsions.		0.2	---
Finishing coat	Massa de Revestimento Média Coating based on special copolymers, light and weather resistant pigments and fillers.		2.0 to 2.3	1.2

Component	Description	Coverage (kg/m^2)	Thickness (mm)
Glass fibre meshes	IBERTEX GA 160 – Fiberglass Mesh 160g/m^2 Standard mesh, 160 g/m^2 (glass fibre mesh with mesh size 3.99 mm x 5.02 mm).	---	---
	Viplás 275 Reinforced mesh, 330 g/m^2 (glass fibre mesh with mesh size 6.0 mm x 6.0 mm).	---	---
Anchors (supplementary mechanical fixings)	WKRET-MET-LTX	---	---
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)

2.1 Intended use

This ETICS is intended for use as external insulation of building walls. The walls are made of masonry (bricks and blocks) or concrete (cast on site or as prefabricated panels) with a reaction to fire classification A1 to A2-s2,d0 according to EN 13501-1 or A1 according to the EC decision 96/603/EC as amended. The ETICS is designed to give the wall to which it is applied satisfactory thermal insulation. The characteristics of walls shall be verified prior to use of the ETICS, especially regarding conditions for reaction to fire classification and for fixing of the ETICS either by bonding or mechanically.

The ETICS shall be designed and installed in accordance with ETA holder's installation instructions and this ETA. The kit consists of components defined by the ETA holder and manufactured either by the ETA holder or his supplier(s).

The ETICS is made of non-loadbearing construction elements. It does not contribute directly to the stability of wall on which it is installed, but it can contribute to durability by providing enhanced protection from the effect of weathering.

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

The ETICS is not intended to ensure the airtightness of the building structure.

The provisions made in this European Technical Assessment (ETA) are based on an assumed intended working life of at least 25 years, provided that the conditions laid down in the following sections 2.3 to 2.5 for the packaging, transport, storage, installation are met and that the installed ETICS is subjected to an appropriate use, maintenance and repair as well. The indications 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 only as a means for choosing the appropriate products in relation to the expected economically reasonable working life of the works.

2.2 Manufacturing

The European Technical Assessment is issued for the ETICS on the basis of agreed data/information, deposited with the ITeCons - Instituto de Investigação e Desenvolvimento Tecnológico para a Construção, Energia, Ambiente e Sustentabilidade, which identifies the ETICS that has been assessed and judged. Changes to the ETICS or production process, which could result in the deposited

data/information being incorrect should be notified to ITeCons - Instituto de Investigação e Desenvolvimento Tecnológico para a Construção, Energia, Ambiente e Sustentabilidade before changes are introduced. The ITeCons - Instituto de Investigação e Desenvolvimento Tecnológico para a Construção, Energia, Ambiente e Sustentabilidade will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

2.3 Design and installation

The installation instructions including special installation techniques and provisions for the qualification of the personnel are given in the manufacturer's technical documentation.

Design, installation and execution of ETICS are to be in conformity with national documents. Such documents and the level of their implementation in Member States' legislation are different. Therefore, the assessment and declaration if performance are done taking into account general assumptions introduced in the sections 7.1 and 7.2 of ETAG 004 used as EAD, which summarizes how information introduced in the ETA and related documents is intended to be used in the construction process and gives advice to all parties interested when normative documents are missing.

2.4 Packing, transport and storage

The information on packing, transport and storage is given in the manufacturer's technical documentation. It is the responsibility of manufacturer to ensure that this information is made know to the concerned people.

2.5 Use, maintenance and repair

The finishing coat shall be normally maintained in order to fully preserve the ETICS performance. Maintenance includes at least:

- visual inspection of the ETICS,
- the 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 manufacturer(s) to ensure that this information is made know to the concerned people.

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

The identification tests and the assessment for the intended use of this ETICS according the Essential Requirements were carried out in compliance with the ETAG 004, "Guideline for European Technical Approval of External Thermal Insulation Composite Systems with Rendering" – edition February 2013 (hereinafter referred to as "ETAG 004, used as EAD").

3.1 ETICS characteristics

3.1.1 Mechanical resistance and stability (BW1)

Not relevant.

3.1.2 Safety in case of fire (BW2)

3.1.2.1 Reaction to fire

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 for both systems.

The BARBOTHERM EPS system meets the requirements of class C-s2, d0. This classification is valid for the BARBOTHERM EPS system with EPS insulation product, standard mesh, base coat, key coat and finishing coat.

The BARBOTHERM ICB system meets the requirements of class C-s2, d0. This classification is valid for the BARBOTHERM ICB system with ICB insulation product, standard mesh, base coat, key coat and finishing coat.

The BARBOTHERM F EPS system meets the requirements of class C-s3, d0. This classification is valid for the BARBOTHERM F EPS system with EPS insulation product, standard mesh, base coat, key coat and finishing coat.

The BARBOTHERM F MW system meets the requirements of class B-s2, d0. This classification is valid for the BARBOTHERM F MW system with EPS insulation product, standard mesh, base coat, key coat and finishing coat.

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.

3.1.3 Hygiene, health and environment (BW3)

3.1.3.1 Water absorption (capillarity test)

The results of the water absorption test of the base coat BARBOTHERM or BARBOTHERM F (system with and without finishing), presented in Table 2, verify the following condition:

- Water absorption after 1 hour < 1 kg/m^2
- Water absorption after 24 hours < 0.5 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 24 h	
	< 0.5 kg/m^2	≥ 0.5 kg/m^2
EPS + base coat 1 + standard mesh	X	
EPS + base coat 1 + standard mesh + key coat + finishing coat	X	

System specimens	Water absorption after 24 h	
	< 0.5 kg/m²	≥ 0.5 kg/m²
ICB + base coat 1 + standard mesh	X	
ICB + base coat 1 + standard mesh + key coat + finishing coat	X	
EPS + base coat 2 + standard mesh	X	
EPS + base coat 2 + standard mesh + key coat + finishing coat	X	
MW + base coat 2 + standard mesh	X	
MW + base coat 2 + standard mesh + key coat + finishing coat	X	

3.1.3.2 Watertightness

3.1.3.2.1 Hygrothermal behaviour

Hygrothermal cycles have been performed on a rig. 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 water penetration to the insulation layer.

This ETICS is therefore assessed resistant to hygrothermal cycles.

3.1.3.2.2 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/m²

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

3.1.3.3 Impact resistance

The resistance to hard body impact (3 and 10 Joules) tests carried out on samples of systems compositions lead to the use categories presented in Table 3.

Table 3: Impact resistance to hard body impacts

System specimens	Use categories[1]
EPS + base coat 1 + standard mesh + key coat + finishing coat	II
EPS + base coat 1 + standard mesh + reinforced mesh + key coat + finishing coat	II
ICB + base coat 1 + standard mesh + key coat + finishing coat	II
ICB + base coat 1 + standard mesh + reinforced mesh + key coat + finishing coat	II
EPS + base coat 2 + standard mesh + key coat + finishing coat	II
EPS + base coat 2 + standard mesh + reinforced mesh + key coat + finishing coat	II
MW + base coat 2 + standard mesh + key coat + finishing coat	II

System specimens	Use categories[1]
MW + base coat 2 + standard mesh + reinforced mesh + key coat + finishing coat	I

[1] Use categories:
Category I – zones readily accessible at ground level to the public and vulnerable to hard impacts but not subjected to abnormally rough use;
Category II – zones liable to impacts from thrown or kicked objects, but in public locations where the height of system will limit the size of impact; or at lower levels where access to the building is primarily to those with some incentive to exercise care.
Category III – zones not likely to be damaged by normal impacts caused by people or by thrown or kicked objects.

3.1.3.4 Water vapour permeability

Table 4 presents de resistance to water vapour diffusion of rendering system (base coat and finishing coat) for the system configuration, expressed by the equivalent air thickness.

Table 4: Equivalent air thickness

System specimens	Equivalent air thickness (m)
Base coat 1 + standard mesh + key coat + finishing coat	0.3
Base coat 2 + standard mesh + key coat + finishing coat	0.4

3.1.3.5 Release of dangerous substances

A written declaration was submitted by the ETA holder stating that all ETICS components does not contain dangerous substances.

In addition to the specific clauses relating to dangerous substances contained in this ETA, there may be other requirements applicable to the ETICS falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Regulation (EU) No 305/2011, these requirements need also to be complied with, when and where they apply.

3.1.4 Safety in use (BW4)

3.1.4.1 Bond strength

3.1.4.1.1 Base coat onto insulation products

Tests were performed on the systems, after hygrothermal cycles. The results are summarized in Table 5.

Table 5: Bond strength between base coat and insulation product

System	Bond strength (after ageing)
EPS + base coat 1 + standard mesh + key coat + finishing coat	≥ 0.08 MPa
EPS + base coat 1 + standard mesh + reinforced mesh + key coat + finishing coat	≥ 0.08 MPa
ICB + base coat 1 + standard mesh + key coat + finishing coat	< 0.08 MPa (100% rupture in the insulation product)
ICB + base coat 1 + standard mesh + reinforced mesh + key coat + finishing coat	< 0.08 MPa (100% rupture in the insulation product)
EPS + base coat 2 + standard mesh + key coat + finishing coat	≥ 0.08 MPa

System	Bond strength (after ageing)
EPS + base coat 2 + standard mesh + reinforced mesh + key coat + finishing coat	≥ 0.08 MPa
MW + base coat 2 + standard mesh + key coat + finishing coat	< 0.08 MPa (100% rupture in the insulation product)
MW + base coat 2 + standard mesh + reinforced mesh + key coat + finishing coat	< 0.08 MPa (100% rupture in the insulation product)

3.1.4.1.2 Adhesive onto insulation products

Tests were performance on samples of insulation products with base coat. The results are summarized in Table 6.

Table 6: 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
EPS + adhesive 1	≥ 0.08 MPa	≥ 0.03 MPa	≥ 0.08 MPa
ICB + adhesive 1	< 0.08 MPa (100% rupture in the insulation product)	≥ 0.03 MPa	< 0.08 MPa (100% rupture in the insulation product)
EPS + adhesive 2	≥ 0.08 MPa	≥ 0.03 MPa	≥ 0.08 MPa
MW + adhesive 2	< 0.08 MPa (100% rupture in the insulation product)	< 0.03 MPa (100% rupture in the insulation product)	< 0.08 MPa (100% rupture in the insulation product)

3.1.4.1.3 Adhesive onto substrate

Tests were performance on samples of substrate (concrete) faced with adhesive product. The results are summarized in Table 7.

Table 7: Bond strength between adhesive and substrate

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 + substrate (concrete)	≥ 0.25 MPa	≥ 0.08 MPa	≥ 0.25 MPa

3.1.5 Protection against noise (BWR 5)

No performance determined.

3.1.6 Energy economy and heat retention (BWR 6)

3.1.6.1 Thermal resistance

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

$$R_{ETICS} = R_i + R_{render}\ [m^2K/W]$$

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:

$$U_C = U + \Delta U\ [W/(m^2.K)]$$

U_C: corrected thermal transmittance (W/m^2K) of the entire wall, including thermal bridges.

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

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

R_i: thermal resistance of the insulation product;

R_{render}: thermal resistance of the render [about 0.02 $m^2.K/W$];

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

R_{se}: external surface thermal resistance [$m^2.K/W$];

R_{si}: internal surface thermal resistance [$m^2.K/W$].

ΔU: correction term of the thermal transmittance for mechanical fixing devices

$$\Delta U = X_p * n$$

n: number of anchors (through insulation product) per m^2;

X_p: point thermal transmittance value of the anchor (0.0000 W/K) [1].

[1]The thermal bridge effect of the anchor is smaller than 0.0005 W/K and can therefore be neglected in the calculation.

The value of thermal resistance of the render system (R_{render}) was considered as equal to 0.02 $m^2.K/W$ according clause 5.6.4.1 of the ETAG 004.

Table 9 presents the values of thermal resistance calculation for different systems with various thicknesses.

Table 9: Thermal resistance values for different system

	Insulation thickness (mm)	**R_{ETICS} [$m^2.K/W$]**
BARBOTHERM EPS BARBOTHERM F EPS	40	1.07
BARBOTHERM ICB	40	1.02
BARBOTHERM MW	50	1.37

3.1.7 Sustainable use of natural resources (BWR 7)

No performance determined.

3.1.8 Aspects of durability, serviceability and identification

3.1.8.1 Bond strength after ageing

Results of the tests for determining the bond strength between the base coat and the insulation product present in Table 5 show that in the case of EPS board the failure resistance values are higher

than 0.08 MPa. In the case of ICB boards and MW the failure resistance values are less than 0.08 MPa, but the rupture occur in the insulation product (cohesive rupture).

3.2 Characteristics of the components

3.2.1 Insulation products

3.2.1.1 Expanded polystyrene (EPS)

Factory-prefabricated uncoated panels made of expanded polystyrene (EPS) complying with the requirements of EN 13163.

Table 10: EPS characteristics

Component	Characteristics	Declared values and classes
Insulation product	Reaction to Fire / EN 13501-1	E (Density: 20kg/m^3)
	Thermal conductivity (W/m.°C) / EN 12667	0.038 to 0.040
	Thickness (mm) / EN 823	Class T1: ± 2 mm
	Length (mm) / EN 822	Class L1: ± 3 mm
	Width (mm) / EN 822	Class W1: ± 3 mm
	Compressive stress at 10% deformation (kPa) / EN 826	100
	Bending strength (kPa) / EN 12089	150
	Water absorption by immersion / EN 12087	< 2%
	Water vapour diffusion resistance factor / EN 12086	μ = 30 – 70
	Linear thermal expansion coefficient (°C)	5-7 × 10^{-5}
	Form stability at a temperature (°C)	85

3.2.1.2 Expanded cork (ICB)

Factory-prefabricated uncoated panels made of expanded cork (ICB) complying with the requirements of EN 13170.

Table 11: ICB characteristics

Component	Characteristics	Declared values and classes
Insulation product	Reaction to Fire / EN 13501-1	E
	Density (kg/m^3) / EN 1602	≤ 130
	Thermal conductivity coefficient (W/m.K) / EN 12667	0.036 to 0.040
	Bending strength (kPa) / EN 12089	≥ 130
	Compressive stress at 10% deformation (kPa) / EN 826	≥ 100
	Water absorption (kg/m^2) / EN 1609	≤ 0.5
	Thickness (mm) / EN 823	10 to 150

Component	Characteristics	Declared values and classes
	Dimensions (mm) / EN 822	1000 × 500
	Squareness (mm)/ EN 824	≤ 2.0
	Flatness (mm)/ EN 825	≤ 2.0
	Tensile strength perpendicular to the faces (kPa) / EN 1607	≥ 50

3.2.1.3 Mineral wool (MW)

Factory-prefabricated uncoated panels made of mineral wool (MW) complying with the requirements of EN 13162.

Table 12: MW characteristics

Component	Characteristics	Declared values and classes
Insulation product	Reaction to Fire / EN 13501-1	A_1
	Density (kg/m^3) / EN 1602	95-150
	Thermal conductivity coefficient (W/m.K) / EN 12667	0.036
	Compressive stress at 10% deformation (kPa) / EN 826	≥ 100
	Water absorption (kg/m^2) / EN 1609	≤ 1
	Water absorption by immersion (kg/m^2) / EN 12087	< 3
	Water vapour diffusion resistance factor / EN 12086	μ = 1
	Thickness (mm) / EN 823	50 to 200
	Dimensions (mm) / EN 822	1000 × 500
	Compressive strength (kPa)/ EN 826	20

3.2.2 Glass fibre meshes

The characteristics of the glass fibre meshes are presented in Table 13.

Table 13: Glass fibre mesh characteristics

Component	Trade Name	Characteristics		Results
Standard mesh	IBERTEX GA 160 – Fiberglass Mesh 160g/m^2	Mass per unit area (g/m^2)		154
		Ash content at 625 °C (%)		83.4
		Loss on ignition at 625 °C (%)		16.6
		Residual strength after ageing (N/mm)	Warp	≥ 20
			Weft	≥ 20
		Relative residual strength after ageing (%)[1]	Warp	≥ 50
			Weft	≥ 50
		Mesh size (mm)		3.99 x 5.02
		Mesh opening (mm)		3.66 x 4.15

Component	Trade Name	Characteristics		Results
Reinforced mesh	Viplás 275	Mass per unit area (g/m^2)		330
		Residual strength after ageing (N/mm)	Warp	≥ 20
			Weft	≥ 20
		Relative residual strength after ageing (%)[1]	Warp	≥ 40
			Weft	≥ 40
		Mesh size (mm)		6.0 x 6.0
		Mesh opening (mm)		5.90 x 5.90

[1] Percentage of the strength in the as-delivered state

3.2.4 Anchors

3.2.4.1 Characteristic resistance

Anchors for insulation product act as a supplementary fixing if required. The characteristic resistance of anchors was evaluated according ETAG 014, clause 5.4.2. Table 14 present the ETA corresponding the anchors used for insulation product used.

Table 14: Anchors description of individual product characteristics contained in the ETA

Trade name	Plate diameter (mm)	Characteristic resistances in the substrate
WKRET-MET-LTX	60	See ETA 08/0172

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 (see Table 15).

Table 15: System of attestation of conformity applicable to ETICS.

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

(1) 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).

(2) Products/materials not covered by footnote 1.

(3) 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 ETA is issued on the basis of agreed data/information, deposited at ITeCons, which identifies the product that has been assessed and judged. It is the manufacturer's responsibility to make sure that all those who use the kit are appropriately informed of specific conditions laid down in this ETA.

Changes to the ETICS or the components or their production process should be notified to the 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.

5.1 Tasks of the manufacturer

5.1.1 Factory production control

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.

5.1.2 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.

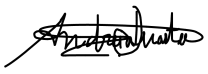
In cases where the provisions of the ETA and its control plan are no longer fulfilled, the Notified Body shall withdraw the certificate of conformity and inform ITeCons without delay.

Issued in Coimbra, Portugal on 30.01.2018

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)