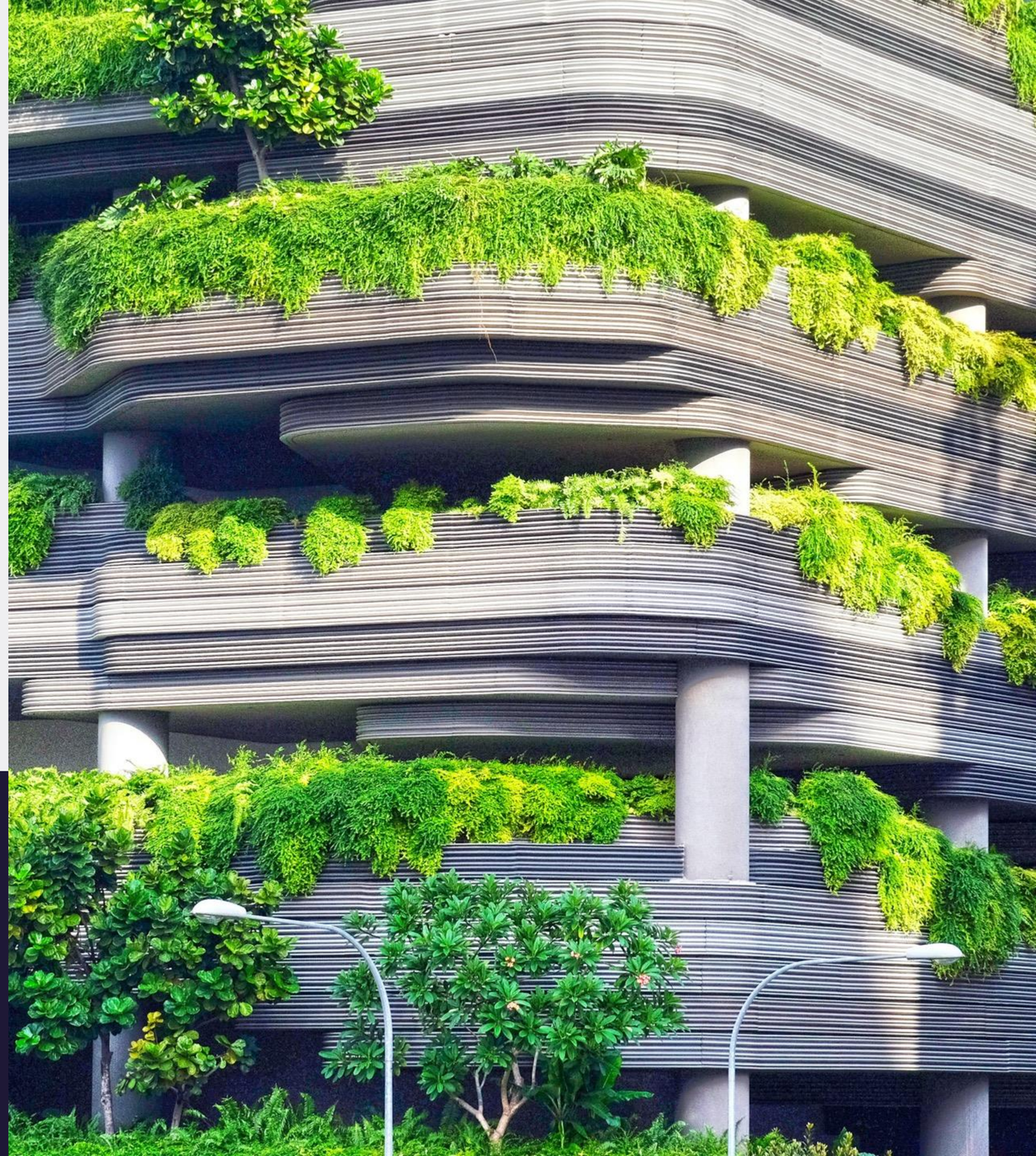
www.breglobalireland.ie



The **European Technical Assessment (ETA)** provides an independent Europe-wide procedure for assessing the essential performance characteristics of non-standard construction products.

Who are we?

BREGI as we are known, are an accredited Notified Body (NB)

Technical Assessment Body (TAB)

Our core activity is to issue CE certification for products.

There are two routes by which a product can be certified.

Testing against an existing Harmonised European Standard (hEN)

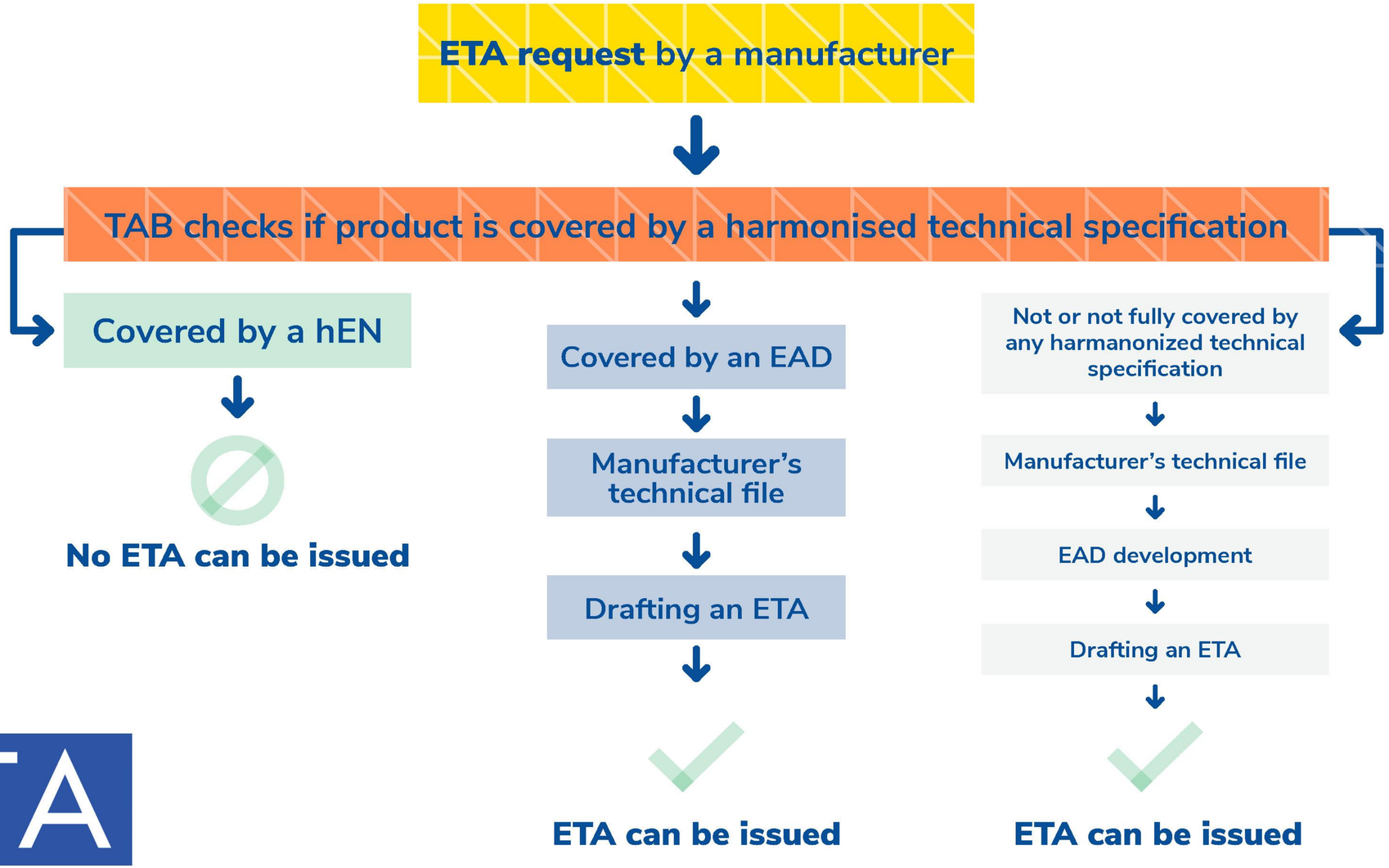
Testing against a European Assessment Document (EAD)

Why are there 2 routes?

We are seeing new products being introduced all the time.

In cases where a new product cannot be assessed against an existing hEN, a new route has been developed by the EC to support innovation, and to provide a route to market and CE marking for those manufacturers.

The European Assessment Document, EAD.


ETA request by a manufacturer
TAB checks if product is covered by a harmonised technical specification
Covered by a hEN
No ETA can be issued
Covered by an EAD
Manufacturer's technical file
Drafting an ETA
ETA can be issued
Not or not fully covered by any harmanonized technical specification
Manufacturer's technical file
EAD development
Drafting an ETA
ETA can be issued

What is an EAD?

An example EAD210207-00-0404 Tiles made without cement.

EAD 210207-00-0404

February 2022

TILES MADE OF AGGREGATE BLENDS AND MICROORGANISMS

Adopted European Assessment Document according to Regulation (EU) № 305/2011, Annex II 7.

EOTA®

European Organisation for Technical Assessment www.eota.eu

General - All

Contents

1 SCOPE OF THE EAD

1.1 Description of the construction product

The tiles made of aggregate blends and microorganisms (in the following referred to as "tiles") are manufactured from aggregate, which may or may not be a waste stream product, and microorganism(s) which produce biologically generated calcium carbonate material. This process results in modular units with one or more finished faces. They are formed by vibratory compaction in a semi-dry mix. The units are placed into a temperature-controlled chamber and dosed with a nutrient solution to promote calcium carbonate formation within the aggregate mixture over a period of time.

The tiles are not fully covered by a harmonized European standard, since EN 15285[1] and EN 15286, since these standards cover agglomerated stone tiles with cement-based binders. The standards do not cover tiles made from aggregate blends and microorganisms which generate calcium carbonate during incubation through a biological process, not through the addition of a cementitious binder, which is the method covered by the above-mentioned harmonized standards. Additionally, the standards to not include all characteristics relevant for the assessment of the product in relation to the intended uses described in section 12.1. The characteristics thermal resistance and resistance to fixings are not included in the EAD ,since the intended use does not cover uses for thermal insulation and the tiles are not fastened to the substrate with fixings.

Concerning product packaging, transport, storage, maintenance, replacement and repair it is the responsibility of the manufacturer to undertake the appropriate measures and to advise their clients on the transport, storage, maintenance, replacement and repair of the product, as the manufacturer considers necessary.

It is assumed that the product will be installed according to the manufacturer's instructions or (in absence of such instructions) according to the usual practice of the building professionals.

Relevant manufacturer's stipulations having influence on the performance of the product covered by this European Assessment Document, shall be considered for the determination of the performance, and detailed in the ETA.

1.2 Information on the intended use(s) of the construction product

1.2.1 Intended use(s)

The tiles are intended to be used as cladding on exterior facades and interior walls, as well as interior and exterior flooring applications.

The core of the process is the European Technical Assessment (ETA)

Example of the ETA from a current project

EAD160004-00-0301

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European Technical Assessment

ETA 20/0996 Issue 02 of dd/MM/2023

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: BRE Global Ireland

Trade name of the construction product	[redacted]
Product family to which the construction product belongs	PAC 16 — Reinforcing and pre-stressing steel for concrete (and ancillaries). Post tensioning kits.
Manufacturer	[redacted]
Manufacturing plant(s)	[redacted]
This European Technical Assessment contains	53 pages including Annexes 1 to 34 which form an integral part of this assessment.
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	European Assessment Document (EAD) 160004-00-031, September 2016

This version replaces	ETA 20/0996 dated 21/12/2020

Contents

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Evaluation Report (ER) of ETA 20/0996 (dd/mm/2023) Issue 02

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: BRE Global	
Trade name of the construction product	[redacted]
Product family to which the construction product belongs	PAC 16 – Reinforcing and pre-stressing steel for concrete (and ancillaries). Post tensioning kits.
Manufacturer	[redacted]
Manufacturing plant(s)	[redacted]
This ER contains	30 pages which form an integral part of this Evaluation Report.
The European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	EAD-160004-00-0301:2016 POST-TENSIONING KITS FOR PRESTRESSING OF STRUCTURES
Date of ER	dd/mm/2023

Table of Contents

The procedures for developing an EAD and the subsequent compilation of the ETA & ER are well established.

This is the core work that a Technical Assessment Body like BREGI is involved in.

A significant part of the process is the liaison with the European Organisation for Technical Assessment (EOTA).

EOTA and the ETA Route - YouTube

- Examples of other terminology that is used in relation to an EAD;

  The 7 Basic Work Requirements

  Mechanical resistance and stability

  Safety in case of fire

  Hygiene, health and the environment

  Safety and accessibility in use

  Protection against noise

  Energy economy and heat retention

  Sustainable use of natural resources

Work Program

DIBt 20.07.2020	It is not clear if the panels are bearing via the sandwich load-bearing effect or if the core only serves as thermal insulation. Please define it in section 3.	The core is predominantly structural. It bonds to the steel faceplates and transfers forces incident on one faceplate (shear, tension, compression) to the other faceplate. It is acting as the web between the faceplate flanges, as in an I-beam.
DIBt 14.09.2022:	What does 4-19-4 (inch, mm) mean? Please define.	BRE response: The client has comfirmed that all dimensions are in mm, 12.12.2022
DIBt 14.09.2022:	If aluminum is mentioned, then the panels should be assessed with face sheets of aluminum. Please include aluminum in the specification or remove it completely.	BRE: steel only – take out references to aluminium. This was agreed with client on 12.12.2022
DIBt 14.09.2022:	Welding with heat input possibly damages (locally) the PU core, which after all is only resistant up to approx. 100 °C. If welding is used, what about the PU in the heat-affected zone?	BRE: Information supplied by the client on 12.2.2022 **The PU core is resistant up to at least 200C. Welding procedures are specified at the design stge. The SPS panel faceplates can tolerate small welds, for larger welds an internal heat sink local steel plate is incorporated attached to the inner face of the steel during assembly. There is a technical note on this if required**

Factory Production Control(FPC)

3.2 Tasks of the manufacturer

The corner stones of the actions to be undertaken by the manufacturer of the tiles in the procedure of assessment and verification of constancy of performance are laid down in Table 3.2.1.

Table 3.2.1 Control plan for the manufacturer; corner stones

No	Subject/type of control	Test or control method	Criteria, if any	Minimum number of samples	Minimum frequency of control
Factory production control (FPC)					
1	Dimensions	Visual assessment according to EN 15285 and EN 15286	To be specified in control plan	To be specified in control plan	Continuous
2	Reaction to fire	Direct reaction to fire tests in accordance with 2.2.1 where no CWFT decision applies	To be specified in control plan	To be specified in control plan	Once per two years
		Indirect test of e.g., thickness and mass loss	To be specified in control plan	To be specified in control plan	Every batch
3	Density	2.2.4	To be specified in control plan	To be specified in control plan	Once per year
4	Water absorption	2.2.8	To be specified in control plan	To be specified in control plan	Once per year
5	Flexural strength	2.2.12	To be specified in control plan	To be specified in control plan	Once per year
6	Mechanical wear	2.2.11	To be specified in control plan	To be specified in control plan	Once per year
7	Durability	2.2.13.2	To be specified in control plan	To be specified in control plan	Once per year

Factory Production Control(FPC)

3.3 Tasks of the notified body

The cornerstones of the actions to be undertaken by the notified body in the procedure of assessment and verification of constancy of performance for the tiles are laid down in Table 3.3.1.

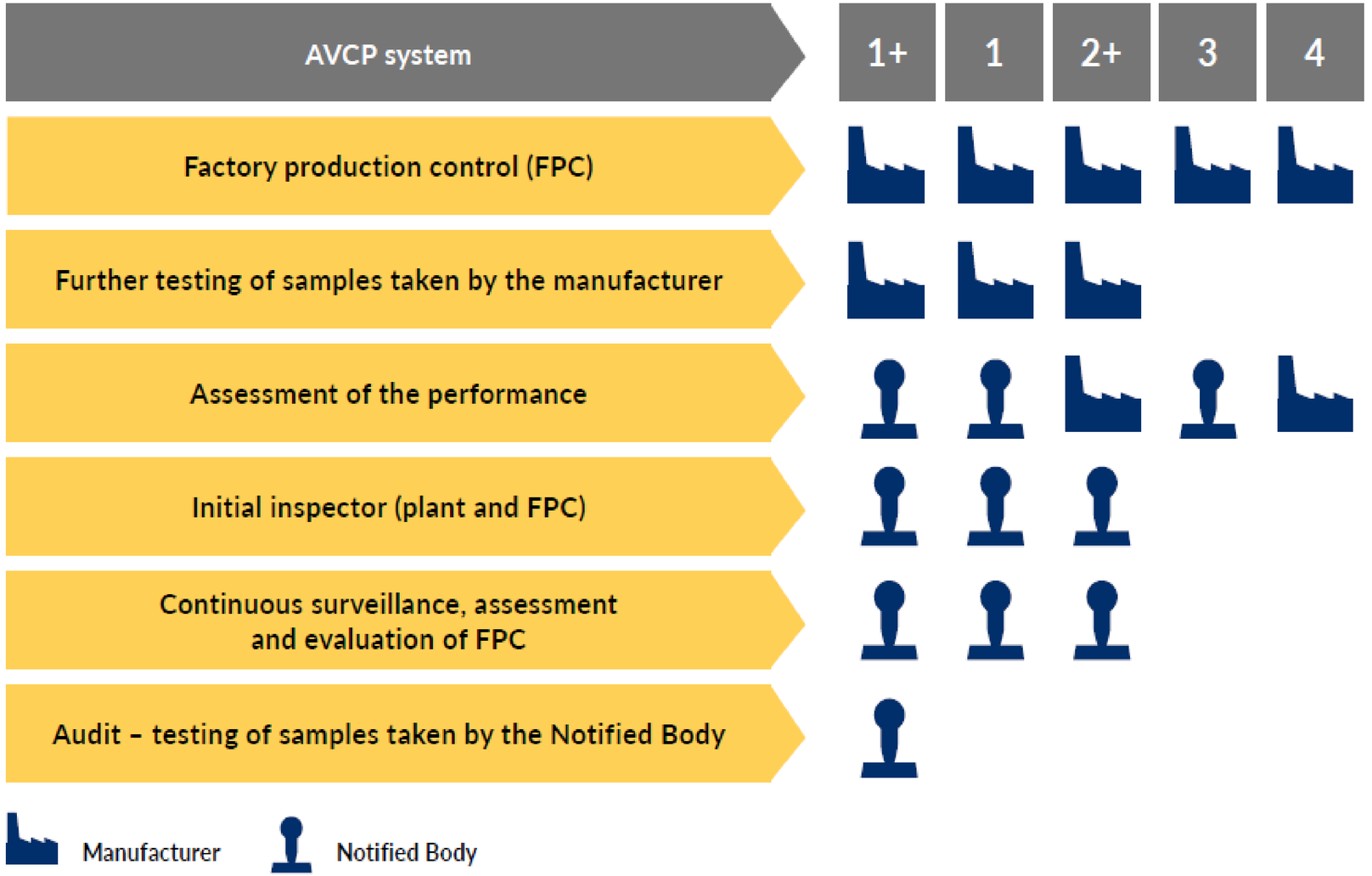
The intervention of the notified body under AVCP system 1 are necessary for reaction to fire for products for which a clearly identifiable stage in the production process results in an improvement of the reaction to fire classification (e.g., an addition of fire retardants or a limiting of organic material).

In this case the cornerstones of the tasks to be undertaken by the notified body under AVCP system 1 are laid down in Table 3.3.1.

Table 3.3.1 Control plan for the notified body; cornerstones

Subject/type of control *(product, raw/constituent material, component – indicating characteristic concerned)*	Test or control method	Criteria, if any	Minimum number of samples	Minimum frequency of control
Initial inspection of the manufacturing plant and of factory production control				
The Notified Body will ascertain that the factory production control with the staff and equipment are suitable to ensure a continuous and orderly manufacturing related to reaction to fire, taking into account productions stages limiting of organic material and/or the addition of fire retardants.	Verification of the complete FPC as described in the control plan agreed between the TAB and the manufacturer	According to Control plan	According to Control plan	When starting the production or a new line
Continuous surveillance, assessment, and evaluation of factory production control				
The Notified Body will ascertain that the system of factory production control and the specified manufacturing process are maintained taking account of the control plan related to resistance to fire and reaction to fire, taking into account productions stages limiting of organic material and/or the addition of fire retardants.	Verification of the controls carried out by the manufacturer as described in the control plan agreed between the TAB and the manufacturer with reference to the raw materials, to the process and to the product as indicated in table 3.2.1	According to Control plan	According to Control plan	1/year

Assessment and Verification of Constancy of Performance (AVCP)



Product Area Codes (PAC)#1

Designation of a Technical Assessment Body pursuant to the Construction Products Regulation

From : Department of Housing, Local Government and Heritage
Custom House
Dublin 1
Ireland

To : European Commission
GROWTH Directorate-General
200 Rue de la Loi,
B-1049 Brussels.

Other Member States

Reference : Regulation (EU) No 305/2011 - Construction products

Body name, address, telephone, fax, email, website :

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Website : www.breglobalireland.ie

Body : Technical Assessment Body

Created : 21/12/2018 | **Last update :** 26/05/2021

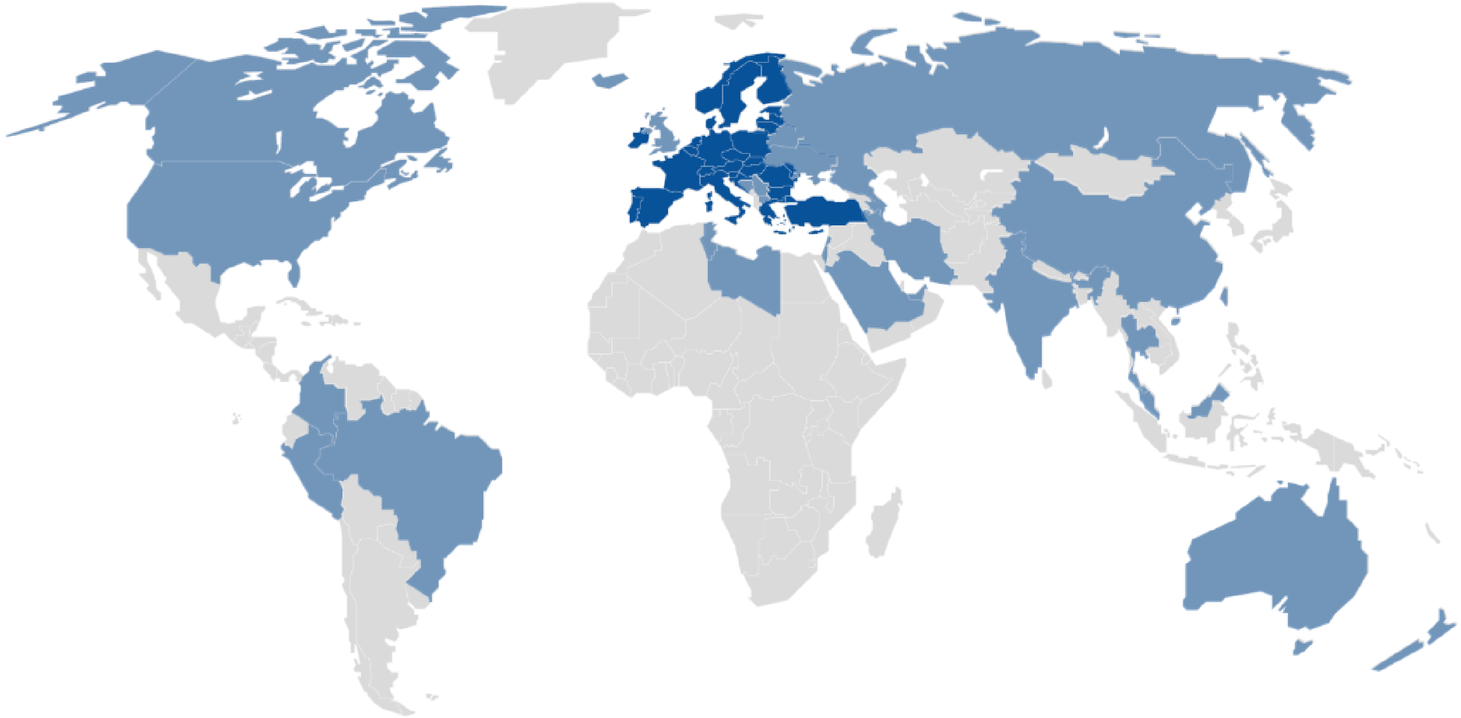
Product Area Codes (PAC)#2

Product Area
PRECAST NORMAL/LIGHTWEIGHT/AUTOCLAVED AERATED CONCRETE PRODUCTS.
MEMBRANES, INCLUDING LIQUID APPLIED AND KITS (FOR WATER AND/OR WATER VAPOUR CONTROL).
THERMAL INSULATION PRODUCTS. COMPOSITE INSULATING KITS/SYSTEMS.
GYPSUM PRODUCTS.
GEOTEXTILES, GEOMEMBRANES, AND RELATED PRODUCTS.
CURTAIN WALLING/CLADDING/STRUCTURAL SEALANT GLAZING.
FIXED FIRE FIGHTING EQUIPMENT (FIRE ALARM/DETECTION, FIXED FIREFIGHTING, FIRE AND SMOKE CONTROL AND EXPLOSION SUPPRESSION PRODUCT).
STRUCTURAL TIMBER PRODUCTS/ELEMENTS AND ANCILLARIES.
WOOD BASED PANELS AND ELEMENTS.
CEMENT, BUILDING LIMES AND OTHER HYDRAULIC BINDERS.
REINFORCING AND PRESTRESSING STEEL FOR CONCRETE (AND ANCILLARIES). POST TENSIONING KITS.
MASONRY AND RELATED PRODUCTS. MASONRY UNITS, MORTARS, AND ANCILLARIES.
FLOORINGS.
INTERNAL & EXTERNAL WALL AND CEILING FINISHES. INTERNAL PARTITION KITS.
AGGREGATES.
CONSTRUCTION ADHESIVES.
PRODUCTS RELATED TO CONCRETE, MORTAR AND GROUT.
SPACE HEATING APPLIANCES.
PIPES-TANKS AND ANCILLARIES NOT IN CONTACT WITH WATER INTENDED FOR HUMAN CONSUMPTION.
CONSTRUCTION PRODUCTS IN CONTACT WITH WATER INTENDED FOR HUMAN CONSUMPTION.
FLAT GLASS, PROFILED GLASS AND GLASS BLOCK PRODUCTS.

1 / 2

Product Area
POWER, CONTROL AND COMMUNICATION CABLES.
SEALANTS FOR JOINTS.
BUILDING KITS, UNITS, AND PREFABRICATED ELEMENTS.
FIRE STOPPING, FIRE SEALING AND FIRE PROTECTIVE PRODUCTS. FIRE RETARDANT PRODUCTS.

- **307 EADs published** in the OJEU,
- **583 EADs adopted** and valid for **issuing ETAs**
- **10.519 ETAs** issued by Technical Assessment Bodies (TABs)
- **ETAs** requested by manufacturers in **73 countries around the world**
- A **European** success story at a **global** scale!



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