

# EUROPEAN TECHNICAL ASSESSMENT

**ETA 20/0593**

Version 02

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UBAtc Assessment Operator:  
Belgian Construction Certification Association  
Rue d'Arlon 53 - 1040 Brussels  
www.bcca.be - info@bcca.be



Technical Assessment Body issuing the European Technical Assessment: UBAtc.  
UBAtc has been designated according to Article 29 of Regulation (EU) No 305/2011  
and is member of EOTA (European Organisation for Technical Assessment)

Trade name of the construction product:

iQ3 / CELLULOSE iQ3 / iQ3 CELLULOSE / CELLIPURE / ISOLANT ECOLOGIQUE SEMI / DOMOSANIX / CELLECO

Product family to which the construction product belongs:

In-situ formed loose fill cellulose (LFCI) products

Manufacturer:

ISOPROC CVBA  
Boterstraat 23A  
2811 Mechelen  
Belgium  
PCIM SA  
Rue de Gorimont 8  
5590 Ciney  
Belgium

Manufacturing plant(s):

Website:

[www.isoproc.be](http://www.isoproc.be)

This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:

European Assessment Document (EAD): EAD 040138-01-1201

This ETA replaces

ETA 20/0526, issued on 17 August 2020 by UBAtc

This European Technical Assessment contains:

6 pages, with 1 annex which forms an integral part of this ETA



## European Organisation for Technical Assessment

## Legal bases and general conditions

- 1 This European Technical Assessment is issued by UBAtc (Union belge pour l'Agrément technique de la construction, i.e. Belgian Union for technical Approval in construction), in accordance with:
  - Regulation (EU) No 305/2011<sup>1</sup> of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC
  - Commission Implementing Regulation (EU) No 1062/2013<sup>2</sup> of 30 October 2013 on the format of the European Technical Assessment for construction products
  - EAD 040138-01-1201 In-situ formed loose fill thermal and/or acoustic insulation products made of vegetable fibres
- 2 Under the provisions of Regulation (EU) No 305/2011, UBAtc is not authorized to check whether the provisions of this European Technical Assessment are met once the ETA has been issued.
- 3 The responsibility for the conformity of the performances of the products with this European Technical Assessment and the suitability of the products for the intended use remains with the holder of the European Technical Assessment.
- 4 Depending on the applicable Assessment and verification of constancy of performance (AVCP) system, (a) notified body(ies) may carry out third-party tasks in the process of assessment and verification of constancy of performance under this Regulation once the European Technical Assessment has been issued.
- 5 This European Technical Assessment allows the manufacturer of the construction product covered by this ETA to draw up a declaration of performance for the construction product.
- 6 CE marking should be affixed to all construction products for which the manufacturer has drawn up a declaration of performance.
- 7 This European Technical Assessment is not to be transferred to other manufacturers, agents of manufacturers, or manufacturing plants other than those indicated on page 1 of this European Technical Assessment.
- 8 The European Technical Assessment holder confirms to guarantee that the product(-s) to which this assessment relates, is/are produced and marketed in accordance with and comply with all applicable legal and regulatory provisions, including, without limitation, national and European legislation on the safety of products and services. The ETA-holder shall notify the UBAtc immediately in writing of any circumstance affecting the aforementioned guarantee. This assessment is issued under the condition that the aforementioned guarantee by the ETA-holder will be continuously observed.
- 9 According to Article 11(6) of Regulation (EU) No 305/2011, when making a construction product available on the market, the manufacturer shall ensure that the product is accompanied by instructions and safety information in a language determined by the Member State concerned which can be easily understood by users. These instructions and safety information should fully correspond with the technical information about the product and its intended use which the manufacturer has submitted to the responsible Technical Assessment Body for the issuing of the European Technical Assessment.
- 10 Pursuant to Article 11(3) of Regulation (EU) No 305/2011, manufacturers shall adequately take into account changes in the product-type and in the applicable harmonised technical specifications. Therefore, when the contents of the issued European Technical Assessment do not any longer correspond to the product-type, the manufacturer should refrain from using this European Technical Assessment as the basis for their declaration of performance.
- 11 All rights of exploitation in any form and by any means of this European Technical Assessment is reserved for UBAtc and the ETA-holder, subject to the provisions of the applicable UBAtc regulations.
- 12 Reproduction of this European Technical Assessment including transmission by electronic means shall be in full. However, partial reproduction can be made with the written consent of UBAtc. In this case partial reproduction has to be designated as such. Texts and drawings of advertising brochures shall not contradict or misuse the European Technical Assessment.
- 13 Subject to the application introduced, this European Technical Assessment is issued in English and may be issued by the UBAtc in its official languages. The translations correspond fully to the English reference version circulated in EOTA.
- 14 This European Technical Assessment was first issued by UBAtc on 17 August 2020. This amended version modifies the moisture conversion factor  $F_{m2}$ .

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<sup>1</sup> OJEU, L 88 of 2011/04/04

<sup>2</sup> OJEU, L 289 of 2013/10/31

## Technical Provisions

### 1 Technical description of the product

#### 1.1 General

This ETA is being issued for the products specified on the cover page, on the basis of agreed data/information, deposited with the UBAtc, which identifies the products that have been assessed and judged. Changes to the product/production process, which could result in the deposited data/information being incorrect, should be notified to the UBAtc before the changes are introduced. The UBAtc will decide whether or not such changes affect the ETA and, if so, whether further assessment/alterations to the ETA, shall be necessary.



#### 1.2 Description of the construction product

The construction product consists of cellulose fibres, supplied as in-situ formed loose fill fibres for mechanical installation, hereafter referred to as insulation product.

The insulation product is composed of fibres, obtained by crushing and fiberizing recovered paper, to which additives (boric acid and magnesium sulphate) are added.

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

#### 2.1 Intended uses

The insulation product is intended to be used on floors or in cavities of roofs, walls and floors.

Depending on the intended application, open blow or cavity, the product must be installed with a density between 25 and 35 kg/m<sup>3</sup> or a density between 39 and 65 kg/m<sup>3</sup>.

For cavity applications, the manufacturer's target blown density depends, among other things, on the depth of the cavity, the inclination of the cavity and the roughness of front and back of the cavity.

Open blow applications	Cavity applications
Floors and ceilings	Roofs (pitched and flat)
	Walls (exterior and interior)
	Floors and ceilings
Density: 25 - 35 kg/m <sup>3</sup>	Density: 39 - 65 kg/m <sup>3</sup>

The insulation product shall only be used in structures where it will not be exposed to compression loads, precipitation, wetting or weathering and for construction elements with no contact to water and soil or in constructions with no risk that the critical moisture content will be exceeded.

The insulation product is covered to avoid direct contact with the user of the building.

The corrosion developing capacity of the insulation product has not been assessed. Suitable measures may be necessary to avoid contact of the insulation product with metal parts of the construction.

This ETA does not cover the complete or finished insulation system. National design specifications and codes of practice and regulations apply.

#### 2.2 Working life/Durability

The provisions made in this ETA are based on the manufacturer's request to take into account a working life of the thermal insulation of 50 years when installed in the works, provided that the thermal insulation is subject to appropriate installation.

The indications given as to the working life of the construction product cannot be interpreted as a guarantee either given by the product manufacturer or by the UBAtc, but are regarded only as means for expressing the expected economically reasonable working life of the product.

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

#### 3.1 Mechanical resistance and stability (BWR1)

Not applicable.

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

##### 3.2.1 Reaction to fire

Classification according to EN 13501-1 and the mounting and fixing rules given in EN 15101-1, Annex C.

The table below specifies the reaction to fire class and the envisaged field of application.

Field of application	Reaction to fire class
<p>This classification is valid for the following product parameters:</p> <ul style="list-style-type: none"> <li>- Thickness: <math>\geq 40</math> mm</li> <li>- Density: <math>(25 \pm 15\%) \text{ kg/m}^3</math> to <math>(65 \pm 15\%) \text{ kg/m}^3</math></li> </ul>	E
<p>This classification is valid for the following product and installation parameters:</p> <ul style="list-style-type: none"> <li>- Thickness: <math>\geq 180</math> mm</li> <li>- Density: <math>(25 \pm 15\%) \text{ kg/m}^3</math> to <math>(65 \pm 15\%) \text{ kg/m}^3</math></li> <li>- Valid for the product as placed on the market</li> <li>- Substrate: Euroclass E or better, nominal thickness <math>\geq 18</math> mm, nominal density <math>\geq 220 \text{ kg/m}^3</math></li> <li>- Air gap: with or without air gap</li> <li>- Size: all product sizes</li> </ul>	B-s2, d0

#### 3.3 Hygiene, health and the environment (BWR 3)

##### 3.3.1 Biological resistance (mould fungi resistance)

Assessment according to EN 15101-1, Annex F.

Performance: Class BA 0 (no mould visible on specimen surface, examined with reflected-light microscope at 50x magnification)

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

Not applicable.

#### 3.5 Protection against noise (BWR 5)

##### 3.5.1 Sound absorption

No performance assessed.

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

##### 3.6.1 Thermal conductivity

Assessment according to EAD 040138-01-1201, Annex A and EN 12667. Calculation of the effects of moisture according to EN ISO 10456.

The declared thermal conductivity is given at a mean temperature of 10°C and for a moisture content equal to the one in equilibrium with air at 23°C and relative humidity of 50%.

$$\lambda_{D(23,50)} = 0,039 \text{ W/m.K for density range } 25 - 35 \text{ kg/m}^3.$$

$$\lambda_{D(23,50)} = 0,038 \text{ W/m.K for density range } 39 - 65 \text{ kg/m}^3.$$

The moisture content mass by mass when in equilibrium with air at 23°C and relative humidity 50%,  $u_{23,50} = 0,074 \text{ kg/kg}$ .

The moisture conversion coefficient mass by mass for the conversion of the thermal conductivity at dry conditions to the thermal conductivity at 23°C and 50% relative humidity,  $f_{u,1} = 0,195 \text{ kg/kg}$ .

The moisture conversion factor for the conversion of the thermal conductivity at dry conditions to the thermal conductivity at 23°C and 50% relative humidity,  $F_{m1} = 1,015$ .

The moisture content mass by mass when in equilibrium with air at 23°C and relative humidity 80%,  $u_{23,80} = 0,141 \text{ kg/kg}$ .

The moisture conversion coefficient mass by mass for the conversion of the thermal conductivity at 23°C and 50% relative humidity to the thermal conductivity at 23°C and 80% relative humidity,  $f_{u,2} = 0,214 \text{ kg/kg}$ .

The moisture conversion factor for the conversion of the thermal conductivity at 23°C and 50% relative humidity to the thermal conductivity at 23°C and 80% relative humidity,  $F_{m2} = 1,014$ .

##### 3.6.2 Water vapour diffusion resistance

No performance assessed.

##### 3.6.3 Water absorption

No performance assessed.

##### 3.6.4 Corrosion developing capacity

No performance assessed.

##### 3.6.5 Settlement/ density

###### 3.6.5.1 Open blow applications

###### 3.6.5.1.1 Settlement under impact excitation

Assessment according to EN 15101-1, Annex B3 (without conditioning at 40°C / 90% relative humidity).

The settlement under impact excitation,  $s_v = 7\%$  for minimum installation density  $25 \text{ kg/m}^3$  and maximum thickness 325 mm.

###### 3.6.5.2 Cavity applications

###### 3.6.5.2.1 Settlement under vibrations

Assessment according to EN 15101-1, Annex B2.

Performance: SC 0 (no measurable settlement ( $\leq 1\%$ )) for minimum installation density  $38 \text{ kg/m}^3$  and maximum thickness 240 mm

##### 3.6.6 Critical moisture content

No performance assessed.

##### 3.6.7 Specific airflow resistivity

No performance assessed.

### 3.6.8 Hygroscopic sorption properties

No performance assessed.

### 3.7 Sustainable use of natural resources (BWR 7)

Not applicable.

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

For the products covered by EAD 040138-01-1201, the applicable European legal act is Decision<sup>3</sup> 1999/91/EC of the European Commission for thermal insulating products, as amended by Decision<sup>4</sup> 2001/596/EC of 8 January 2001 and Commission Delegated Regulation (EU) 2016/364<sup>5</sup>. The system to be applied has been specified in the table below.

**Table 1: System of assessment and verification of constancy of performance applicable to the products covered by EAD 040138-01-1201**

Product(s)	Intended use(s)	Level(s) or class(es) (reaction to fire)	System(s) of assessment and verification of constancy of performance <sup>(1)</sup>
	Any	-	3
		(A1, A2, B, C)*	1
Thermal insulation products	For uses subject to reaction to fire regulations	(A1, A2, B, C)**,	3
		(A1 to F)***, NPD****	4

<sup>(1)</sup> Systems 1, 3 and 4: see Regulation (EU) N° 305/2011, Annex V

\* 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).

\*\* Products/materials not covered by footnote (\*).

\*\*\* 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, as amended).

\*\*\*\* 'No performance declared' in accordance with Regulation (EU) N° 305/2011, Article 6(f).

## 5 Technical details necessary for the implementation of the AVCP system

### 5.1 Tasks of the manufacturer – Factory production control

#### 5.1.1 General

The manufacturer shall establish, document and maintain a FPC system to ensure that the products are placed on the market conform to the stated performance characteristics. The FPC system shall consist of procedures, regular inspections and tests and/or assessments and the use of the results to control raw and other incoming materials or components, equipment, the production process and the product.

The results of inspections, tests or assessments requiring action shall be recorded, as shall any action taken. The action to be taken when control values or criteria are not met shall be recorded.

#### 5.1.2 Equipment

All weighing, measuring and testing equipment shall be calibrated and regularly inspected according to documented procedures, frequencies and criteria.

#### 5.1.3 Raw materials and components

The specifications of all incoming raw materials and components shall be documented, as shall the inspection scheme for ensuring their conformity.

#### 5.1.4 Non-conforming products

In the event of any non-conformity of any product, that product shall be placed into quarantine and action taken to rectify the cause of the non-conformity. Products may not subsequently be dispatched until the problem has been resolved.

#### 5.1.5 Tests and frequencies

All the elements, requirements and provisions adopted by the manufacturer are documented in a systematic manner in the form of written policies and procedures. This production control system ensures that the product is in conformity with the European Technical Assessment (ETA).

### 5.2 Tasks of the notified body - Assessment of the performance of the construction product

Assessment tests have been conducted under the responsibility of the assessment body (UBA<sub>tc</sub>) in accordance with EAD 040138-01-1201.

The assessment results should be used for the purpose of assessment of the performance of the construction product in accordance with Regulation (EU) N° 305/2011, Annex V.

<sup>3</sup> OJEU, L 29 of 1999/02/03

<sup>4</sup> OJEU, L 209 of 2001/08/02

<sup>5</sup> OJEU, L 68 of 2016/03/15

## Annex I: Reference documents

EAD 040138-01-1201	In-situ formed loose fill thermal and/or acoustic insulation products made of vegetable fibres
EN 12667	Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Products of high and medium thermal resistance
EN 13501-1	Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

EN 15101-1 Thermal insulation products for buildings - In-situ formed loose fill cellulose (LFCI) products - Part 1: Specification for the products before installation

EN ISO 10456 Building materials and products - Hygrothermal properties - Tabulated design values and procedures for determining declared and design thermal values


NOTE: The editions of reference documents given above are those which have been adopted by the UBAtc for its specific use when establishing this ETA. When new editions become available, these supersede the editions mentioned only when confirmed by the UBAtc

UBAtc asbl is a non-profit organization according to Belgian law. It is a Technical Assessment Body notified by the Belgian notifying authority, the Federal Public Services Economy, SMEs, Self-Employed and Energy, on 17 July 2013 in the framework of Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC and is member of the European Organisation for Technical Assessment, EOTA ([www.eota.eu](http://www.eota.eu)).

This European Technical Assessment has been issued by UBAtc asbl, in Sint-Stevens-Woluwe, on the basis of the technical work carried out by the Assessment Operator, BCCA.

On behalf of UBAtc asbl,

On behalf of the Assessment Operator, BCCA,  
responsible for the technical content of the  
ETA,



Eric Winnepenninckx  
secretary general



Benny De Blaere,  
director



Olivier Delbrouck,  
director general

The most recent version of this European Technical Assessment may be consulted on the UBAtc website ([www.ubatc.be](http://www.ubatc.be)).