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Authorised and notified according to Article 10 of the Council Directive of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products (89/106/EEC)

MEMBER OF EOTA

# European Technical Approval ETA-10/0298

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|---|---|
| **Trade name:** | **İNFİNİSO - polyester fibre thermal insulation** |
| **Holder of approval:** | **LIBELTEX BVBA**<br>**Marialoopsteenweg 51**<br>**B-8760 Meulebeke**<br>**Belgium** |
| **Generic type and use of construction product:** | **Thermal and acoustic insulation for building** |
| **Validity from/to:** | **09.09.2010**<br>**09.09.2015** |
| **Manufacturing plant:** | **LIBELTEX BVBA**<br>**Marialoopsteenweg 51**<br>**B-8760 Meulebeke**<br>**Belgium** |
| **This European Technical Approval Contains:** | **7 pages** |

## I. LEGAL BASES AND GENERAL CONDITIONS

**1.** This European Technical Approval is issued by the Centre of Building Construction Engineering, Joint Stock Company, Notified Body 1390, Prague (thereinafter CSI a.s. Praha) in accordance with:

- Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products (1), modified by the Council Directive 93/68/EEC(2); and Regulation )EC) No. 1882/2003 of the European Parliament and of the Council (3),
- the Government Decree No. 190/2002 Collection of Law of the Czech Republic (4), of 21 May 2002.
- Common Procedural Rules for Requesting, Preparing and the Granting of European Technical Approvals set out in the Annex to Commission Decision 94/23/EC(5).
- CUAP for European Technical Approval of „Polyester fibre thermal insulation" No 12.01/16, edition September 2007

**2.** CSI a.s. Praha is authorized to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant. Nevertheless, the responsibility for the conformity of the products to the European Technical Approval and for their fitness for the intended use remains with the holder of the European Technical Approval.

**3.** This European Technical Approval is not to be transferred to manufacturers or agents of manufacturer other than those indicated on page 1, or manufacturing plants other than those laid down in the context of this European Technical Approval.

**4.**European Technical Approval may be withdrawn by the CSI a.s. Praha in particular pursuant to information by the Commission according to Article 5.1 of the Council Directive 89/106/EEC.

**5.** Reproduction of this European Technical Approval including transmission by electronic means shall be in full. However, partial reproduction can be made with the written consent of the CSI a.s. Praha. 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 Approval.

**6.** The European Technical Approval is issued by the approval body in English. This version corresponds fully to the version circulated within EOTA. Translations into other languages have to be designated as such.

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1. Official Journal of the European Communities No. L 40, 11.02.1989, p.12
2. Official Journal of the European Communities No. L220, 30.08.1993, p.1
3. Official Journal of the European Union No. L284, 31.10.2003, p.1
4. Collection of Law of the Czech Republic Vol.79 No.190, 21.5.2002
5. Official Journal of the European Communities No L17, 20.01.1994, p.34

## II. SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

### 1. Definition of the product and intended use

### 1.1 Definition of the construction product

Nonwoven fibre thermal insulation consists of thermally bonded polyester fibres. Products are delivered in board and rolls form. Density of the insulation can be 12 kg/m$^3$, 20 kg/m$^3$, 30 kg/m$^3$, 40 kg/m$^3$. Four product types are defined according to these density values:

**İNFİNİSO ROOFBASE**

| | |
|---|---|
| Density | 12 kg/m$^3$ |
| Thickness | from 60 to 180 mm |
| Roll dimensions - width | 1200 mm |
| - length | from 3 to 12 m |
| Board dimensions | 600 x 1200 mm |
| | 600 x 1350 mm |

**İNFİNİSO UNIVERSAL**

| | |
|---|---|
| Density | 20 kg/m$^3$ |
| Thickness | from 60 to 120 mm |
| Roll dimensions - width | 1200 mm |
| - length | from 3 to 12 m |
| Board dimensions | 600 x 1200 mm |
| | 600 x 1350 mm |

**İNFİNİSO PERFORMANCE**

| | |
|---|---|
| Density | 30 kg/m$^3$ |
| Thickness | from 60 to 100 mm |
| Roll dimensions - width | 1200 mm |
| - length | from 3 to 12 m |
| Board dimensions | 600 x 1200 mm |
| | 600 x 1350 mm |

**İNFİNİSO PREMIUM**

| | |
|---|---|
| Density | 40 kg/m$^3$ |
| Thickness | from 40 to 60 mm |
| Roll dimensions - width | 1200 mm |
| - length | from 3 to 12 m |

### 1.2 Intended use

The product is intended to be used in cavities outer walls, cavities inner walls and in roofing as thermal and acoustic insulation. The insulation can be used in constructions where it is not exposed to wetting, weathering, heavy moisture transport, condensation or long term compression loads.

The provisions and the verification and assessment methods refered to in this ETA are based on an assumed working life of the thermal insulation of 50 years provided that the conditions laid down in this section and sections 4.2/5.1/5.2 for the packaging, transport, storage, installation, use, maintenance and repair are met. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

## 2. Characteristic of product and methods of verification

The methods of verification and characteristics of the thermal insulation evaluated in this ETA are as follows:

| CUAP Paragraph | Characteristic | Assessment of the characteristic |
|---|---|---|
| 2.4.1 | **ER1 Mechanical resistance and stability**<br>Corrosion developing capacity on metal constructions | NPD |
| 2.4.2 | **ER2 Safety in case of fire**<br>Reaction to fire | Euroclass B-s2-d0 |
| 2.4.3 | **ER3 Hygiene, health and environment**<br>Content and release of dangerous substances | No dangerous substances *)<br>No flame retardants or biocides |
| 2.4.4 | Water absorption, EN 1609 | NPD |
| 2.4.5 | Water vapour permeability, EN 12086 μ- value | NPD |
| 2.4.6 | Air permeability, EN 29053 | NPD |
| 2.4.7 | Susceptibility to mould growth, CUAP Annex B | NPD |
| | **ER4 Safety in use** | Not relevant |
| 2.4.8<br>2.4.9 | **ER5 Protection against noise**<br>Dynamic stiffness and compressibility<br>Impact sound reduction | NPD |
| 2.4.10 | **ER6 Energy economy and heat retention**<br>Thermal conductivity<br>EN 12 667 (testing)<br>EN ISO 10456 (calculation) | |
| | Density kg/m3 | Roofbase: 12 \| Universal: 20 \| Performance: 30 \| Premium: 40 |
| | $\lambda_{DECLARED}$ W/mK | Roofbase: 0,041 \| Universal: 0,035 \| Performance: 0,033 \| Premium: 0,031 |
| 2.4.11 | **Geometry tolerance**<br>length (acc to EN 822)<br>width (acc to EN 822)<br>thickness (acc to EN 823) | +/- 3 %<br>+/- 3 %<br>- 5 % /+ excess permitted |

| | | | | | |
|---|---|---|---|---|---|
| 2.4.12 | **Dimensional stability** (acc to EN 1604) | < 1% | | | |
| 2.4.13 | Tensile strength parallel to faces (acc to EN 1608) kPa | Roofbase | Universal | Performance | Premium |
| | | 2,5 | 4,0 | 5,0 | 10,0 |
| | **General aspects relating to fitness for use** | | | | |
| 2.4.14 | Compressive strength at 10% deformation | NPD | | | |
| 2.4.15 | Deformation under specified compressive load and temperature conditions | NPD | | | |
| 2.4.16 | Tensile strength perpendicular to faces | NPD | | | |
| 2.4.17 | Compressive creep | NPD | | | |
| 2.4.18 | Bending strength | NPD | | | |
| 2.4.19 | Point load | NPD | | | |

**) In addition of the specific caluses relating to dangerous substances contained in this European Technical Approval, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products directive, these requirements need also to be compiled with, when and where they apply.*

## 3. Conformity evaluation and CE marking

### 3.1 System of attestation of conformity

Pursuant the decision 99/91/EC of 25.01.1999 of the European Commission the system 3 of attestation of conformity will be applied, because there is no improvement of the reaction to fire classification in the production process.

This system of attestation of conformity is defined in the following way:

System 3: declaration of conformity of the product by the manufacturer on the basis of

(a) Tasks for the manufacturer:
- (1) Factory production control
- (2) Testing of samples taken at the factory in accordance with the prescribed test plan

(b) Tasks for the notified body:
- (3) Initial typ testing of the product

### 3.2 Tasks and reponsibilities of the manufacturer and notified bodies

#### 3.2.1 Tasks of the manufacturer

3.2.1.1 Factory production control (FPC)

The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner including policies and procedures and records of test results. This production control system shall insure that the product is in conformity with the ETA.

The manufacturer maintains a file describing the tasks and tests imposed on ETA. holder. The file includes information of the main raw materials and „Control plan" which include the type and frequency of the manufacturers factory production control agreed beween approval holder and CSI a. s. Praha.

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the „Control plan".

3.2.1.2 Initial type testing (ITT)

Approval test will have been conducted by the CSI a.s. Praha, or under its responsilitity in accordance with section 2 of this ETA.

### 3.2.2 Tasks of the Notified Body

Initial type tests of the product properties which are declared in the section 2.

For initial type testing the results of the tests performed as part of the assessment for this European Technical Approval shall be used if they are done on samples coming from the current production process unless there are changes in the production line or plant. In such cases the necessary type has to be agreed beween CSI a.s. Praha and the manufacturer.

## 4. Assumptions under which the fitness of the product for the intended use was favourably assessed

### 4.1 Manufacturing of the product

Manufacturing of the polyester fibre thermal insulation is based on the defined production method, use of defined raw materials and tolerances. If changes take place, manufacturer is responsible to clarify if the change has influence on the properties of the product tested according to the provisions of this ETA.

The European Technical Approval is issued for the products on the basis of agreed data/information, deposited with CSI a.s.Praha, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to CSI a.s.Praha, before the changes are introduced. CSI a.s. Praha will decide whether or not such changes affect the approval and consequently the validity of the CE marking on the basis of the approval and if so whether further assessment or alterations to the approval shall be necessary.

### 4.2 Installation

The thermal insulation is installed on to the building according to the instructions of the manufacturer.The suitability of the insulation to the planned purpose shall be evaluated taking into account what has been said in chapter 1.2

## 5. Indications to the manufacturer

### 5.1. Packaging, transport and storage

The insulation products are transported to the building site in truck or containers, packaged into plastic foil. The products shall be stored in dry conditions and at temperatures between -40 and + 60°C before the installation.

**5.2 Use, maintenance and repair**

The thermal insulation shall work adequately when the construction where it is installed according to the instructions of the manufacturer is maintainded and repaired so that the provisions of use given in chapter 1.2 of fhis ETA are fulfilled.

On behalf of Centre of Building Construction Engineering, Joint Stock Company, Prague (CSI a.s. Praha)

Prague 09.09. 2010

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