



**INSTITUTE FOR TESTING AND CERTIFICATION, Inc.**  
Třída Tomáše Bati 299, Louky, 763 02 Zlín, Czech Republic  
CSI division – Centre of Civil Engineering



**AUTHORIZED BODY No. 224**  
*Authorization Decision No. 1/2021 of 28 January 2021*

issues the following

# **CONSTRUCTION TECHNICAL APPROVAL**

**No. STO – AO 224 – 197/2009/d**

pursuant to Sections 2 and 3 of Czech Government Decree No. 163/2002 Coll., as amended by Government Decree No. 312/2005 Coll. and Government Decree No. 215/2016 Coll.

**The authorized body certifies the suitability of the construction product**

**EKOTERNIT type EB1, EB2, EB3, EB4**

**introduced to the market by the following manufacturer**

**Lukáš Urbaník**

Družstevní 595, Vrbno pod Pradědem,  
793 26; Czech Republic  
Company Registration No.: 74154338  
VAT Reg. No.: CZ8710295407

**from the manufacturing site:**

**Lukáš Urbaník**

Družstevní 595, Vrbno pod Pradědem,  
793 26; Czech Republic

**with respect to the essential requirements for constructions and to the intended product use in the construction.**

Contract No.: 783502408

Number of pages: 9  
Place and date of issue: Zlín 2021-07-30

This Certificate shall be valid till: 31 July 2024



**Mgr. Jiří Heš**

Representative of the Authorized Body No. 224

## 1. Introduction

This Construction Technical Approval (hereinafter referred to as "STO") has been issued by the Authorized Body AO 224 based on the applicant's application for cooperation in conformity assessment of the construction product pursuant to Government Decree No. 163/2002 Coll., as amended by Government Decrees No. 312/2005 Coll. and No. 215/2016 Coll. (hereinafter referred to as "GD 163"), because of non-existence of specification standards or technical regulations specifying applicable essential requirements with respect to the intended use of the product in the construction. In this document, the Authorized Body AO 224 specifies the product's technical properties, their levels and procedures to examine the properties in relation to the essential requirements for constructions specified in Annex 1 to GD 163 and to the intended product use in the construction. This document is a technical specification intended for use within product conformity assessment.

## 2. Identification of the Authorized Body

This Construction Product Performance Certificate is being issued by Authorzsed Body AO 224 – Institute for Testing and Certification in Zlín. Authorisation for this construction product type has been granted to this Authorized Body by the Office for Standards, Metrology and Testing (ÚNMZ), Decision No. 1/2021 of 28 January 2021. This Authorized Body's identification data are as follows:

*Institute for Testing and Certification, a.s.*  
*Třída Tomáše Bati 299, Louky*  
*763 02 Zlín*  
*Czech Republic*  
*Company Registration No.: 47910381*  
*VAT Reg. No.: CZ47910381*  
*Phone: +420 572 779 922, e-mail [director@itczlin.cz](mailto:director@itczlin.cz)*

## 3. Identification of the applicant and manufacturer

### 3.1. Identification of the applicant

The request for cooperation in the conformity assessment was submitted by the manufacturer Lukáš Urbaník, who is involved in the production and distribution of construction products.

The applicant's identification data are as follows:

*Lukáš Urbaník*  
*Družstevní 595, Vrbno pod Pradědem,*  
*793 26; Czech Republic*  
*Company Registration No.: 74154338*  
*VAT Reg. No.: CZ8710295407*  
*Telephone +420 732 456 422, e-mail: [Lukas@Urbanik.cz](mailto:Lukas@Urbanik.cz)*

### 3.2. Identification of the manufacturer

Manufacturer's address:

*Lukáš Urbaník*  
*Družstevní 595, Vrbno pod Pradědem,*  
*793 26; Czech Republic*



## 4. Identification of the Product and Specification of its Use in the Construction

### 4.1. Product identification and description

The 'EKOTERNIT' roofing material is made of recycled plastic, size 338 x 338 x 5.4 mm (EB1) and dimensions 390 x 390 x 6.2 mm (EB 2) with two bevelled opposite corners. In addition, in size 450 x 300 x 5.4 mm EB 3 (rectangle) and size 320 x 320 x 5.4 mm EB 4 in the shape of fish scales. The production material is resistant to both weather and mechanical damage. In terms of ductility, the roofing material can be used for round or semicircular parts of roofs, where sheeting is otherwise used. The roofing material withstands high temperatures in the summer and very low temperatures in the winter. Due to temperature changes, the roofing may creep slightly over the years, which, however, does not affect the functionality of the plastic roofing and is a natural characteristic of this product if the installation conditions are observed. The manufacturer recommends underlining the covering with diffusion foil providing ventilation to the attic spaces.

### 4.2. Product labelling

The 'EKOTERNIT' roofing material, elastic slate EB 1, EB 2, EB 3 and EB4 is supplied on wooden pallets protected by shrink foil, whereas each pallet is marked with the number of pieces and the date of manufacture.

### 4.3. Intended use of the product in the construction

Roofing material "EKOTERNIT", elastic slate EB 1, EB 2, EB 3 and EB4 is designed for laying on boarded roof structures of the saddle type (sloping impassable roofs according to ČSN 73 1901) with a roof pitch of at least 25° for low-rise buildings.

During the installation, it is necessary to follow the manufacturer's instructions for use and installation. (The attachment of the individual tiles is three-point – on each side with a copper nail and under the so-called vibratory copper clip, alternatively with a galvanized clip and nail. The nails are not hammered in tightly in terms of expansion and undesired deformations and it is also essential to keep the recommended gap between the individual templates.)

### 4.4. Product usage limitations

The use of the product is defined by the standard ČSN 73 1901 "Roof design - Basic provisions" and the manufacturer's declaration in the technical sheet. The product is not considered for applications on surfaces larger than 1500 m<sup>2</sup> and in fire hazard areas.

## 5. Documents Submitted by the Manufacturer

The application was accompanied by the following documents:

- Technical sheet
- User instructions

## 6. Applicable technical regulations, standards, sources of scientific and technical knowledge, information gained by practical experience

The following documents were used to develop and issue this STO:

- ČSN EN ISO 15 013
- ČSN EN ISO 14 632
- ČSN 73 1901



- Act No. 91 / 2016 Coll., on the technical requirements for products and the amendment to certain acts, as amended.
- GD 163/2002 Sb. as amended by GD 312/2005 Coll. and as amended by GD 215/2016 Coll. which lays down technical requirements for specified construction products.
- 149/2017 Coll. Act on packaging and on amendment to certain acts (Packaging Act)
- Directive of the European Parliament and of the Council 2003/53/EC of 18 June 2003 amending for the 26th time Council Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations (nonylphenol, nonylphenol ethoxylate and cement)
- Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended
- Regulation (EC) No. 552/2009/EC of the Commission of 22 June 2009 amending Regulation (EC) No. 1907/2006 of the European Parliament and the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals as for attachment XVII.

## 7. Product classification and conformity assessment as per GD 163

### 7.1. Product classification as per GD 163

The plastic roofing material is a specified construction product. Within the scope of Annex 2 to GD 163, Group 5 covers *Protective, thermal insulation materials and products, waterproofing materials, roof coverings and adhesives, sub-group 6, Roof tiles, roofing slate, stone roofing and shingles, prefabricated composite or sandwich panels (in this case Roof tiles made of plastics, including accessories made of the same material).*

### 7.2. Prescribed conformity assessment procedures

For Group 5, Sub-group 6, the Annex 2 of the GD 163 sets out the conformity assessment procedure:

#### Section 8 - Conformity assessment by the manufacturer

Based on Section 8, Art. (2) and/or the Section 10 of GD 163, in the above cases, based on the manufacturer's or applicant's request, the procedure pursuant to Section 7 (verification of the product's conformity) or Section 5 (certification) can be applied.

### 7.3. Applied technical instructions

Within the coordination activities of ÚNMZ, Technical Instruction 05\_06\_06 b, c was prepared for the given group of products, which became a starting point for defining the scope of monitored properties and methods for their determination.

### 7.4. Deviations from the Technical Instruction

The Technical Instruction specified in subclause 7.3 of this STO was applied during its creation with regard to the specifics of elastic slate EB1 with the following deviations:

- a) With regard to the incorporation of the product into the roof structure and taking into account its specifics (elasticity), tensile strength, ductility, three-point bending and hardness tests will be dropped.
- b) As applications on surfaces larger than 1500 m<sup>2</sup> and in the fire hazardous areas are not considered, the "Fire propagation through the roof cover" test will be dropped.

- c) With regard to the properties of the plastic covers, the dimensional stability test will be performed under thermal load according to ČSN EN ISO 15 013 and ČSN EN ISO 14 632.

## 8. Specification of the technical properties with respect to the essential requirements and procedures to measure them

### 8.1. Essential requirements and Specification of the technical properties

Specification of the technical properties examined with respect to the essential requirements is described, in compliance with subclauses 7.3 and 7.4 above, in the second column of table 1.

**Table 1: Essential requirements and specification of the technical properties**

No.	Name of the technical property:	Test procedure	Test subject::	Quantity of Samples		Required value:
				C/T	D	
1	Thickness	ČSN EN ISO 12 017	Entire sample	10	10	$5.4 \pm 0.3$ mm for EB 1 $6.2 \pm 0.3$ mm for EB 2 $5.4 \pm 0.3$ mm for EB 3 $5.4 \pm 0.3$ mm for EB 4
2	Surface density	ČSN EN ISO 12,017	Entire sample	5	5	$7.30 \pm 0.35$ kg/m <sup>2</sup> for EB 1 $8.60 \pm 0.35$ kg/m <sup>2</sup> for EB 2 $7.30 \pm 0.35$ kg/m <sup>2</sup> for EB 3 $7.30 \pm 0.35$ kg/m <sup>2</sup> for EB 4
3	Puncture resistance	ČSN EN 477	Entire sample	10	10	permissible cracks on the bottom side in the maximum length of a third of the dimension
4	Dimensional stability	ČSN EN 1603 ČSN EN ISO 15 013	Whole product	9	9	≤ 3% after exposure

No.	Name of the technical property:	Test procedure	Test subject::	Quantity of Samples		Required value:
				C/T	D	
		ČSN EN ISO 14 632				-20°C; 110°C; 135°C; 150°C
5	Reaction to flame: - flammability	ČSN EN ISO 11925-2	Test sample	6	6	E

Note: **C** - product certification; **T** - product conformity verification; **D** - supervision of the certified product

## 8.2. Defining the method of assessing technical properties

The table also provides a list of normative regulations used to define the method of assessment of individual monitored technical properties and the necessary number of samples for certification (C), for verification of product conformity (T) and supervision of production control system and control of product compliance (D).

## 8.3. Required levels of technical properties

For the intended uses of the product in construction, which are described in Articles 4.3. and 4.4. of this STO, the required values were determined for the individual properties in the last column of the said table.

## 8.4. Additional applicable technical regulations

The requirements of Act No. 149/2017 Coll., on packaging, as amended, apply to consumer, group and transport packaging of the product.

The product is further covered by REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals, establishing a European Chemicals Agency, and amending Directive 1999/45 / EC Repealing Council Regulation (EEC) No 793/93, Commission Regulation (EC) No 1488/94, Council Directive 76/769 / EEC and Commission Directives 91/155 / EEC, 93/67 / EEC, 93/105 / EC and 2000/21 / EC, as amended, establishing lists of dangerous chemicals and dangerous chemical preparations the placing on the market of which is prohibited or the placing on the market, circulation or use of which is restricted. The manufacturer may only apply additives whose use is not restricted by the decree.

## 9. Detailed requirements for the Factory Production Control (FPC) assessment

### 9.1. Manufacturer's obligations with respect to the FPC system

The manufacturer must have in place a production management system ensuring that all the marketed products comply with the technical documentation and, in particular, meet the essential requirements.

The minimum scopes of requirements for the production control system are specified in Table 2 below:



**Table 2: Minimum scope of requirements for the provision of the FPC**

Serial No.	Quality system area	Detailed requirements
1	Responsibility for production	The manufacturer has designated staff responsible for the purchase of raw materials, materials and products affecting product quality, for the management of the production process, for inspection and testing, for inspection, measuring and testing equipment, for the release of the product for shipment.
2	Responsibility for overall quality management	A member of the management responsible for the overall management of product quality, including review and responsibility for corrective and preventive action has been designated.
3	Technological process of production	The manufacturer has developed a technological process of production in a sufficiently detailed scope. Current technological or production regulations are available at the relevant workplaces
4	Technical specifications	The manufacturer has set technical specifications for the product, a detailed description of the technical properties of the product and has a defined method of its use in construction
5	Record keeping	The manufacturer keeps records of the properties of raw materials, materials and products, production, production and inspection tests, verification and calibration of meters, and records of product quality complaints. Records are identifiable and readable and are securely archived.
6	Production and handling equipment	The manufacturer takes care of the correct condition of the required production equipment.
7	Inspection and testing	The manufacturer has developed a plan of control and testing activities (input, inter-operational, output). Inspections and tests are performed in accordance with the plan. Current inspection and testing procedures regulations are available at appropriate workplaces. Inspection and testing records are made and stored.
8	Gauges used to ensure the production, inspection and testing process	The manufacturer has set suitable gauges to ensure the production, inspection and testing process, keeps records of them and takes care of their correct condition. The manufacturer keeps and maintains records of the gauges validations and calibrations as stipulated by the Act on Metrology
9	Product packaging and marking	The manufacturer has secured the process of packaging and marking the products to the extent necessary to ensure compliance with the specified requirements
10	Storage areas	The manufacturer has the necessary space for storage of input raw materials, materials and products and for storage and dispatch of finished products
11	Instructions for use of the product	The manufacturer has prepared instructions for use and maintenance of the product in the Czech language
12	Basic precautions	The manufacturer shall provide basic precautionary measures (e.g. staff training for functions affecting product quality, use of quality records and customer complaints).

## 9.2. Applicant's obligations with respect to the FPC system

The applicant is obliged to ensure the method of product control so that all products he places on the market correspond to the technical documentation and in particular meet the basic requirements.

In the established conformity assessment procedures, the applicant is obliged to ensure the assessment of the FPC by an Authorized Body at the manufacturer or to carry out an inspection of distributed products in terms of conformity with the technical documentation and the essential requirements in its own or contracted laboratories and to submit the system used to inspect the distributed products to an assessment by an Authorized Body

The minimum scopes of requirements for final product inspection are described in the following table:

Serial No.	Quality system area	Detailed requirements
1	Inspection and testing	The applicant shall have in place product inspection procedures that allow only products that meet the technical specifications to be placed on the market. It inspects the products in accordance with these procedures and the developed inspection and test plan. The inspection staff meet the established qualification requirements and the applicant keeps a record of this. The applicant maintains (archives) inspection/test records. It also keeps records of product complaints. For product inspections, the applicant has specified measuring instrumentation which is subject to verification/calibration; maintains verification/calibration records; sees to it that the measuring instrumentation has valid verification/calibration; and takes care of its good condition at all times.
2	Gauges used for inspection and testing	The applicant has established suitable measuring instruments to ensure inspection and testing, keeps their records and takes care of their correct condition. The manufacturer keeps and maintains records of the measuring instrumentation validations and calibrations as stipulated by the Act on Metrology. <i>Note: Points 1 and 2 may be replaced by appropriate contractual arrangements between the manufacturer and the importer, including a certificate of performance of each batch of product.</i>
3	Storage areas and handling equipment	The applicant has the necessary premises for storage and handling of products, including storage equipment, and takes care of their proper condition.
4	Technical properties of the product	The applicant has prepared a detailed description of the technical properties of the product and has defined the method of its use in construction.
5	Instructions for use of the product	The applicant has prepared instructions for use and maintenance of the product in the Czech language.
6	Instructions and personnel requirements for product installation	The applicant organises customer's and installation organisation's personnel training focusing on the conditions of correct product installation and/or distributes detailed written or audiovisual guidelines.

### 9.3. Responsibility for supervising the production management system

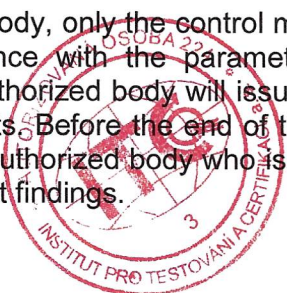
#### *9.3.1. Procedure pursuant to Section 8 of GD 163 – Conformity assessment by the manufacturer*

The sole responsibility for the implementation, documentation and operation of the FPC, including internal supervision, lies with the manufacturer; in the case of product distribution, the applicant (distributor) is responsible for the control of distributed products.

#### *9.3.2. Procedure according to Section 7 of GD 163 – Verification of conformity*

Within the assessment through verification of conformity according to Section 7, the manufacturer has the sole responsibility for the implementation, documentation and operation of the FPC, including internal supervision; the same applies to the control of distributed products by the applicant (distributor).

From the point of view of the Authorized Body, only the control mechanism based on tests of product samples demonstrating compliance with the parameters and criteria set out in Chapter 6 of this STO shall apply. The authorized body will issue a test report with a limited validity of 3 years after the end of the tests. Before the end of the validity of the test report, the manufacturer or importer will ask the authorized body who issued the test report to retest and issue a new test report with the current findings.



### 9.3.3. Procedure pursuant to Section 5 of the GD 163 – Certification

The sole responsibility for the implementation, documentation and operation of the PMS lies with the manufacturer; in the case of distribution of construction products, the distributor is responsible for the control of the distributed products.

The manufacturer will carry out at its own expense or arrange for the performance of tests at an accredited testing laboratory as part of the final inspection at least to the following extent:

Tolerance of thickness	when changing dimensions
Surface density	when changing dimensions
Resistance to puncture	when changing composition
Dimensional stability	when changing composition
Reaction to fire	when changing composition

Samples will be taken by the manufacturer according to the procedures specified in the internal production regulation or corresponding standards.

The authorised body, within its participation in the conformity assessment process, performs periodic annual surveillance over due performance of the production control system or of the importer's final product inspection system and compliance with the specific requirements. Validity of the certificate and permission to continue distribution of the products to the market is conditional on favourable results of the inspection activities included in the report issued to the manufacturer or importer.

The scope of surveillance over the production control system performance must be set by the authorised body in such a manner that all the production control system elements specified in Section 9.1 above are reviewed during a 3-year period.

During the supervision, the employee of the authorized person takes samples in the number specified in column "D" of the table from chapter 8.1. in order to check compliance with the specified requirements by tests carried out by the laboratory of an authorized body at least to the extent of:

Thickness tolerance  
Surface density  
Dimensional stability

## 10. Verification tests

The results of the verification tests performed by the authorised body AO 224 in its accredited testing laboratory AZL 1004 are stated in the test report ref. No. 783502408 - 01 of 30 7. 2021.

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