



**TECHNICKÝ A ZKUŠEBNÍ ÚSTAV STAVEBNÍ PRAHA, s.p.**  
**Technical and Test Institute for Construction Prague**

Akreditovaná zkušební laboratoř, Autorizovaná osoba, Notifikovaná osoba, Oznamovaný subjekt, Subjekt pro technické posuzování, Certifikační orgán, Inspekční orgán / Accredited Testing Laboratory, Authorized Body, Notified Body, Technical Assessment Body, Certification Body, Inspection Body. Prosecká 811/76a, 190 00 Praha 9 - Prosek, Czech Republic

**Notified Body 1020**

**Branch 0200 – České Budějovice**

# REPORT

**on the assessment of performance**

according to the Regulation (EU) 305/2011 of the European Parliament and of the Council of 9 March 2011  
(the Construction Products Regulation or CPR), Art. 1.4 of the Annex V (system 3)

**No. 1020-CPR-020-042612**

Trade name:

**SiproFix BK 90**

type / variation:

**cementitious adhesive for tiles type C1**

Manufacturer:

**Banja Komerc Bekament d.o.o.**

INo: O6056091

Address: 34304 Banja, Arandjelovac, Serbia

Plant: Banja Komerc Bekament d.o.o.

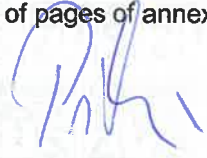
Address: 34304 Banja, Arandjelovac, Serbia

Order: Z 020 20 0002

Number of report pages including title-page: 3

Number of pages of annexes: 4


The person taking responsibility for the content of this report:

  
Ing. Dana Pilařová  
Head Assessor

The person taking responsibility for the correctness of this report:

  
Stamp of the Notified Body 1020

České Budějovice, 4<sup>th</sup> May 2020

  
Ing. Milan Pálka  
Deputy Manager of the Notified Body 1020

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Tel.: +420387 023 210, Fax: +420387 220 864, Internat.: +420387 023 211, e-mail: palka@tzus.cz, www.tzus.cz

Bank Name: KB Praha 1 Czech Republic, Account Number: 1501-931/0100, INo: 000 15679, VAT: CZ00015679

## 1 Specification of tested subject

Description and intended use of the product: SiproFix BK 90 is cementitious tile adhesive suitable for installing floor and wall tiles in internal and external surroundings. Type C1 according to EN 12004

Technical specification: EN 12004:2007 + A1:2012 Adhesives for tiles - Requirements, evaluation of conformity, classification and designation.

Manufacturer: Banja Komerc Bekament d.o.o.  
Plant: 34304 Banja, Arandjelovac, Serbia

## 2 Sampling

Date of sampling: 01.04.2020  
Place of sampling: Banja, Arandjelovac, Serbia  
Sampler: representative of manufacturer

## 3 The assessment of performance on basis of testing, calculation, table values, descriptive documentation

### 3.1 The assessment on basis of testing

#### 3.1.1 Tensile adhesive strength EN 1348

The tests were performed by IMS Institute, Belgrade, Boulevard vojvode Mišića 43. The test results are stated in the Testing report No. VHM - 1903/19 date of 21/04/2020

Table No. 1

Characteristic	Obtained data value
Initial tensile adhesion strength	1.15 MPa
Tensile adhesion strength after water immersion	1.33 MPa
Tensile adhesion strength after heat ageing	0.61 MPa
Tensile adhesion strength after freeze-thaw cycles	0.56 MPa

#### 3.1.2 Content and release of dangerous substances

##### Measurement and evaluation of natural radionuclide content

The evaluation was carried out according to Regulation SÚJB no. 422/2016 Sb.

The tests were performed by TZÚS Prague, Teplice Branch, Tolstého 447,4150 03 Teplice. The test results are stated in the Testing report No. 040-064123 date of 29/04/2020.

Table No. 2

Characteristic	Obtained data value
Measured mass activity "a" Ra-226	22 ± 5 Bq/kg
Index of mass activity "I"	0.12 – 0.13



### 3.2 The assessment on basis of calculation

#### 3.2.1 Release of dangerous substances

##### Assessment on content of hexavalent Chrome

Is not performed if applicant brings out evidence of conformity with of EC Regulation No.1907/2006 for cement used.

#### Note: Reaction to fire

Classification was carried out according to EN 13501-1 using an EC decision EU No. 2010/81/EU of 09/02/2010, which defines reaction to fire of some of the products (content of organic matters max. 20%). Classification CWFT without need for further testing.

The reaction to fire classification of the tile adhesive is: E

## 4 Summary

Table No. 3

Characteristic	Test method	Value determined	Requirement EN 12004 type C1
Reaction to fire	EN 13501-1	class E (CWFT)	class E
Initial tensile adhesion strength	EN 1348	1.15 MPa	≥ 0.5 MPa
Tensile adhesion strength after water immersion		1.33 MPa	≥ 0.5 MPa
Tensile adhesion strength after heat ageing		0.61 MPa	≥ 0.5 MPa
Tensile adhesion strength after freeze-thaw cycles		0.56 MPa	≥ 0.5 MPa
release of dangerous substances • Measured mass activity "a" Ra-226 • Index of mass activity "I"	Recommendation of SÚJB	22 ± 5 Bq/kg 0.12 – 0.13	≤ 150 Bq/kg ≤ 1
Determination of Cr <sup>6+</sup> content	EN 196-10	Is not performed if applicant brings out evidence of conformity with of EC Regulation No.1907/2006 for cement used	

## 5 Annexes

1. Testing report No. VHM - 1903/19 date of 21/04/2020 - IMS Institute, Belgrade, Boulevard vojvode Mišića 43
2. Testing report No. 040-064123 date of 29/04/2020 – TZÚS Teplice.

END OF THE PROTOCOL



IMS Institute, Belgrade

Laboratory for material testing

Laboratory for binders, chemistry and mortars

Belgrade, Boulevard vojvode Mišića 43  
phone: + 381 11 2650 322 fax: + 381 11 3692 772, 3692 782  
e-mail: [office@institutims.rs](mailto:office@institutims.rs) , [www.institutims.rs](http://www.institutims.rs)

## TESTING REPORT

Nº: VHM – 1903/19

**Subject:** Adhesive for ceramics tiles C1, for indoor use  
« SiproFix BK 90»

**Costumer:** «BANJA KOMERC BEKAMENT»d.o.o., Banja,  
Arandjelovac

**Requirement Nº:** Offer Nº 41-19982 from December, 27<sup>th</sup>, 2019.

**Contents:** Number of pages: 3

**Report approval:** Laboratory for binders, chemistry and mortars

Manager  
  
Ljiljana Miličić, B.Sc.

Belgrade, April, 21<sup>st</sup>, 2020.

**Sample data:**

<b>Producer:</b>	«BANJA KOMERC BEKAMENT»d.o.o., Banja, Arandelovac
<b>Type of sample:</b>	Adhesive for ceramics tiles C1, for indoor use
<b>Product mark:</b>	«SiproFix BK 90»
<b>Date and place of sampling:</b>	-
<b>Date of sample receiving:</b>	December, 27 <sup>th</sup> , 2019.
<b>Sampled by:</b>	Costumer Representative
<b>Test methods:</b>	EN 12004-2:2017.
<b>Measurement and control equipment:</b>	<ul style="list-style-type: none"><li>- Automatic scales tip RJ 1220 METTLER, Switzerland, the measuring range 0,5 - 2/12 kg, resolution 0,1/1 g</li><li>- Flow table TECHNOTEST, Italy</li><li>- Mixer with dispenser TONINDUSTRIE, Germany</li><li>- Digital pull-off tester, Controls, Italy, measuring range 0-16 kN, resolution 1N</li></ul>

*Results in this Report refer only tested sample. Laboratory takes no responsibility for sampling made by  
Costumer representatives. Report cannot be multiplied without Laboratory concordances.*



# RESULTS OF TESTING

1.	The ratio of components A : B : H <sub>2</sub> O	1 : 1 : 0,26
2.	Determination of slip, mm	0,0
3.	Determination of tensile adhesion strength, N/mm <sup>2</sup> - Initial tensile adhesion strength - Tensile adhesion strength after water immersion - Tensile adhesion strength after heat ageing - Tensile adhesion strength after freeze-thaw cycles	1,15 "CF-A" 1,33 "CF-A" 0,61 "AF-S" 0,56 "50%CF-A/50%AF-S"
4.	Determination of open time: tensile adhesion strength: N/mm <sup>2</sup> - after 5 min. - after 10 min. - after 20 min.	1,14 "CF-A" 1,05 "CF-A" 0,55 „AF-T"

Test leader

  
Ljiljana Miličić / B.Sc.



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## Central Laboratory – Teplice Testing Facility

Tolstého 447, 415 03 Teplice - Řetenice  
tel.: +420 602115450, e-mail: rubas@tzus.cz, www.tzus.eu  
Radionuclide Laboratory room No.: 113

## REPORT No. 040-064123

### Measuring and evaluating the content of natural radionuclides in construction materials.

#### Basic data:

Client: Banja Komerc Bekament d.o.o.  
Address: 343 04 Banja, Arandjelovac, Serbia  
  
Company identification No.:  
Production plant: Banja Komerc Bekament d.o.o.  
Address: 343 04 Banja, Arandjelovac, Serbia  
Job No.:Teplice Z 040 20 0100  
Job No. České Z 020 20 0004  
Budějovice

#### Sample data:

Sample No.: VZ 040 20 0436  
Sample: cement glue for gluing ceramic tiles and paving Spirofix  
Kind of material: Building products of concrete, gypsum, cement and lime  
Sampling site: Plant  
Sampling date: 01.04.2020  
Date received: 08.04.2020  
Measurement date: 29.04.2020

Permanent permission to measure and evaluate natural radionuclide contents of building materials was granted to Technický a zkušební ústav stavební Praha, s.p., Teplice Branch, by the State Office for Nuclear Safety (SÚJB) on 15 July 2008 (Decision SÚJB/OPZ/16533/2008).

#### Test result:

Test: Measuring and evaluating natural radionuclide contents of building materials.  
Test procedure: The test was realized according to the State Office for Nuclear Safety (SÚJB) recommendation 11/2017. Radioactive equilibrium of the sample was established in the standard Marinelli box. The measurement was realized using the EMS-1 SH detection system (serial No.: ÚJP 025, manufactured by EMPOS, s. r. o. Praha [NaI/Tl scintillation detector 50 × 50 mm, MCA 1256], validated according to Act No. 505/1990 Coll., (metrology law), which is realized by the Czech Metrology Institute (ČMI) validation sheet No. 1054-PS-50036-19 issued on 11 December 2019, valid till 31 December 2021).  
(This test method has been added to accreditation scope during update of the list of accredited standards).  
Employee in charge: Ing. Pavel Rubáš, Ph.D. (holder of a professional licence issued by SÚJB (ZOZ nr. SÚJB/OPR/21914/2018))  
Sample taken by: Ms. Biljana Kamaljevic  
Measuring results: The table below lists the observed activity concentrations of natural radionuclides and the activity concentration index values "I" as defined by Regulation of the State Office for Nuclear Safety No. 422/2016 Coll.

Natural radionuclide	Measured activity concentration "a" [Bq·kg <sup>-1</sup> ]	Activity concentration index "I" (calculated)
Ra-226	a <sub>Ra</sub> 22 ± 5	0,12 (při a <sub>K</sub> = 0) až 0,13 (při a <sub>K</sub> = 14)
Th-232	a <sub>Th</sub> 10 ± 3	I = a <sub>K</sub> /3000 Bq·kg <sup>-1</sup> + a <sub>Ra</sub> /300 Bq·kg <sup>-1</sup> + a <sub>Th</sub> /200 Bq·kg <sup>-1</sup>
K-40	a <sub>K</sub> < 14	(See Section 102 of Regulation No. 422/2016 Coll.)

#### Testing equipment:

The instrumentation are validated and calibrated according to Testing Laboratory validation/calibration schedule.

#### Result evaluation:

The activity concentration index does **not exceed** the value of I = 1, set by Regulation No.422/2016 Coll. as the limit for building materials used for buildings with residential rooms.

#### Prepared by:

Ing. Pavel Rubáš, Ph.D.  
Author of the Report and 1. Statutory  
Deputy Director of the Enterprise

#### Approved by:

Ing. Pavel Bartoš  
Deputy Head of the Testing  
Laboratory

Copy No.: This Report consists of 1 page and is issued in 1 copy

Teplice, 29 April 2020

Declaration: The test results presented in this Report apply only to the object tested and do not substitute any other documents.

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