

Technical Approval

TA – rr/nnnn

pursuant to provisions of Section 26 of Act No. 90/1998 Coll. on Construction Products as amended.

Product trade name and type:

TETRA K Panel

Manufacturer:

KURUC – COMPANY spol. s r.o.,
941 42 Veľké Lovce 393

Manufacturing site:

KURUC – COMPANY spol. s r. o.,
Nitrianska 59 Šurany

Type and purpose of use of the construction product:

TETRA K wall panels, which are used for the construction of exterior and interior non-load bearing wall structures of residential and non-residential buildings.

They are not suitable for the construction of walls exposed to long-term influence of humidity and direct effect of water. The suitability of their application for different types of buildings shall be assessed on individual basis in accordance with the regulations and the standards applicable in the Slovak Republic, depending on the area of construction of a building.

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Approval Body OM 04, a member of EOTA
Notified person 1301
Authorised person SK04
Authorised person SKTC-105



Section of attestation of conformity
Studená 3, 821 04 Bratislava

Branch Bratislava
Studená 3, 821 04 Bratislava
Branch Nové Mesto n/Váhom
Trenčianska 1872/12, 915 05 Nové Mesto n/Váhom
Branch Nitra
Braneckého 2, 949 01 Nitra
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Krmanova 5, 040 01 Košice
Branch Prešov
Budovateľská 53, 080 01 Prešov
Branch Tatranská Štrba
Štefánikova 24, 059 41 Tatranská Štrba

I GENERAL TERMS AND CONDITIONS

- 1 This technical approval was issued by the Approval Body OM 04 of the Building Testing and Research Institute based on the authorisation granted by the Ministry of Construction and Regional Development of the Slovak Republic 1 February 2010, which at the same time replaced the authorisation of 1 March 2009 pursuant to the following provisions:
 - Section 4 and Section 26 of Act No. 90/1998 Coll. on Construction Products as amended,
 - Decree of the Ministry of Transport, Construction and Regional Development of the SR No. 558/2009 Coll. establishing a list of construction products that need to be labelled, systems of attestation of conformity and details of the use of conformity labels, as amended by Decree no. 451/2011 Coll.
- 2 The manufacturer shall immediately inform the Approval Body of the changes in the terms and the conditions based on which the technical approval was issued.
- 3 Responsibility for the compliance of the product with this Technical Approval and fitness for intended use in construction works shall be borne by the manufacturer.
- 4 Reproduction of this Technical Approval including dissemination by electronic means must be carried out in its full version. With the written consent of the Approval Body a part of the document may be reproduced as long as the copy is marked as "incomplete copy." Texts and drawings in advertising materials must not be in conflict with the Technical Approval.
- 5 The Technical Approval may not be transferred onto other manufacturers or agents of manufacturers or another place of manufacture as set out on page 1.
- 6 The Technical Approval is issued in Slovak Republic. Translations into other languages have to indicate on the cover "translation".
- 7 The Technical Approval can only be revoked by the approval body that issued it.
- 8 The approval body shall revoke this Technical Approval if any of the reasons for revocation, under Section 26b(1) of Act no. 90/1998 Coll. on Construction Products as amended, arises.
- 9 The end of the coexistence period of the harmonized technical standard shall end the validity of this Technical Approval.

II SPECIFIC CONDITIONS

1 Product definition and usage

1.1 Product description

TETRA wall panel is a self-supporting lightweight panel with a layered structure. The core of the panel consists of polyurethane foam, which is sheathed on both sides by 10 mm thick TETRA K boards. The two-component polyurethane mixture (manufacturer Bayer, BaySystems CentralEurope a.s., Cerekvice nad Bystřicí, Czech Republic) is poured between the TETRA K boards and after curing, it creates a continuous board of polyurethane foam and also adheres to the TETRA K boards. The shape and the standard dimensions of panels are listed in Annex 1. The manufacturing of TETRA K panels is specified in [1].

TETRA K boards are boards with a layered structure. The manufacturing of TETRA K boards is based on the principle of melting the polyurethane injection, which forms a part of composite packaging, at high pressure and temperature. The core of the board consists of recycled waste from the production of composite packaging used for food packaging (manufacturer TETRA PAK, SCP Ružomberok or Obaly Solo, spol. s r. o., Ružomberok). The production of TETRA K boards can also use packaging from separated municipal waste and from waste collection. The composite paper packaging forms approximately 95% of the board volume. To prevent the occurrence of micro-organisms in the production of TETRA K boards, melamine-urea-formaldehyde resin Kronores CB 3006 F (manufacturer DIAKOL STRÁŽSKE, s.r.o., Strážske) is used. The core of the board is on both sides covered with cardboard on the whole surface (manufacturer Ludoprint, a.s., Bobot). The manufacturing of TETRA K boards is specified in [2]. The TETRA K board has standard dimensions of 2,850 mm x 1,250 mm x 10 mm.

1.2 Purpose and method of use

Non-load-bearing TETRA K wall panels are used as space-enclosing construction parts. They are used for the construction of interior and exterior non-load-bearing wall structures of residential and non-residential buildings. They form filling in walls that does not provide for the stability of the building. They are not suitable for the construction of walls exposed to long-term influence of humidity and direct effect of water. The suitability of their application for different types of buildings shall be assessed on individual basis in accordance with the regulations and the standards applicable in the Slovak Republic, depending on the area of construction of a building.

TETRA K boards are intended for permanent installation in buildings for non-structural use in hazard classes 1 and 2 according to STN EN 335-3.

Wall constructions in which TETRA K boards provide the fire resistance of maximum E 60, EI 60 or EW 60 must be made of two TETRA panels at least 60 mm thick, bound together with a layer at least 2 mm thick, which consists of a construction adhesive based on cement adhesive mortar and fibreglass mesh. Finish of the external surfaces of the bound panels must consist of reinforcing mortar, fibreglass mesh and a coating. The thickness of the construction adhesive along with a fibreglass mesh must be at least 2 mm. The thickness of the coating must be at least 2 mm.

2 Product properties and their verification

2.1 Product properties

2.1.1 Properties related to the essential requirements for buildings (the suitability for use in the building for the intended purpose)

a) Mechanical resistance and stability of the building

The requirement a) does not apply to the product.

b) Fire safety of the building

- b1 It shall preserve for a time specified by the Technical Specifications design bearing capacity
- b2 It shall limit the spread of fire and smoke within the building
- b3 It shall limit the possibility of spread of fire onto neighbouring buildings

2.1.1.1 Fire resistance

Classification of fire resistance of the wall structure of TETRA K panels is indicated in Table 1.

Table 1 – Classification of fire resistance

Structure	Composition	Classification of fire resistance
TETRA K wall panel	<ul style="list-style-type: none"> - wooden frame: around the perimeter of the TETRA K panel there are wooden beams with dimensions 40 x 25 mm - filling: two layers of TETRA K panels 60 mm thick interconnected by a construction adhesive KVK MULTIKLEBER - finish: a reinforcing layer of KVK MULTI KLEBER, fibreglass mesh, MVR UNI plaster 	Partition wall classification: E 60 EI 60 EW 60 Exterior wall classification: E 60 (o↔i) EI 60 (o↔i) EW 60 (o↔i)
Comment: A detailed description of the composition of a non-load-bearing wall to which the fire resistance applies is specified in [15].		

c) Hygiene, health and the environment

- c1 It does not endanger the environment by release of toxic gases
- c2 It does not endanger the environment by the presence of dangerous particles or gases in the air

2.1.1.2 Release of dangerous substances

In terms of hygiene, protection of health and the environment, in the introduction of products on the market, the compliance with the provisions of the Act No. 67/2010 Coll. on the Conditions of Introduction of the Chemical Substances and Chemical Preparations to the Market and on amending and supplementing certain acts (Chemical Act) shall be ensured.

2.1.1.3 Water vapour diffusion

- TETRA K board 0,00132.10⁹ s

2.1.1.4 Diffusion resistance factor

- polyurethane foam 104

d) Building safety during its use**2.1.1.5 Adhesion of TETRA K boards to polyurethane foam core**

min. 0.05 MPa

2.1.1.6 Bending strength

- TETRA K board
- individually ≥ 5 MPa
average ≥ 7 MPa

2.1.1.7 Bending modulus

- TETRA K board
- individually ≥ 650 MPa

average ≥ 900 MPa

- 2.1.1.8 The tensile strength perpendicular to the plane of the board
 - TETRA K board individually ≥ 0.05 MPa average ≥ 0.08 MPa
- 2.1.1.9 The swelling in thickness after immersion in water for 24 hours
 - TETRA K board individually ≤ 25 % average ≤ 22 %
- 2.1.1.10 Resistance to axial withdrawal of screws
 - TETRA K board individually ≥ 35 N/mm average ≥ 60 N/mm
- 2.1.1.11 Density and bulk density
 - TETRA K board - density individually ≥ 580 kg/m³ average ≥ 650 kg/m³
 - polyurethane foam - bulk density average 50 kg/m³ ± 5 kg/m³
- 2.1.1.12 Dimensional precision
 - TETRA K panel tolerances are specified in Annex 1
 - TETRA K boards
- | | |
|-------------|------------|
| - thickness | ± 1 mm |
| - width | ± 2 mm |
| - length | ± 3 mm |

e) Protection against noise

The manufacturer does not declare the properties to which this requirement applies.

f) Energy economy and heat retention

2.1.1.13 Structure thermal resistance

Table 2 – Structural thermal resistance

Structure	Total thickness mm	Thermal resistance R m ² x K/W
TETRA K Panel	40	0.54
	60	0.94
	80	1.34
	100	1.74
	120	2.14
Comment: Example of a TETRA K panel composition are specified in Annex 1.		

- 2.1.2 Properties related to the identification of the product
 The manufacturer does not provide any properties not related to the essential requirements.
- 2.1.3 Properties related to the security of persons in construction work and normal maintenance of the building
 During installation and maintenance works workers may not step on panels directly. Construction works need to comply with the relevant provisions of Decree of the Slovak Occupational Safety Office and the Slovak Mining Office No. 374/1990 Coll. on Safety of Work and Technical

Equipment during Construction Work, as amended by later regulations.

2.2 Methods for verifying the properties

2.2.1 Fire resistance

The property was verified by the test documented in [15]. Fire resistance classification set out in [16]. Method used: the test according to EN 1364-1, classification according to EN 13501-2.

2.2.2 Release of dangerous substances

The manufacturer submitted a statement [14] on the content of hazardous substances for the product TETRA K panel. The manufacturer submitted safety data sheets [4], [5] and [6] for melamine-urea-formaldehyde resins Kronres CB 3006 F and for individual preparations used for the manufacture of polyurethane foam pursuant to Act No. 67/2010 Coll. The manufacturer submitted the decision [3] by the main hygienist of the Slovak Republic on the suitability of the use of TETRA K panels as a construction material in terms of the impact on human health.

2.2.3 Water vapour diffusion

The property of the TETRA K panel was verified by the test documented in [17]. Method used: test according to STN 73 2580.

2.2.4 Diffusion resistance factor

The property of the polyurethane foam was verified by the test documented in [9]. Method used: test according to STN EN 12086.

2.2.5 Cohesion of the TETRA K panel with polyurethane foam.

The property was verified by the test documented in [11]. Method used: test according to STN 732577

2.2.6 Bending strength

The property was verified by the test documented in [10]. Method used: test according to STN EN 310.

2.2.7 Bending modulus

The property was verified by the test documented in [10]. Method used: test according to STN EN 310.

2.2.8 The tensile strength perpendicular to the plane of the board

The property was verified by the test documented in [10]. Method used: test according to STN EN 319

- 2.2.9 The swelling in thickness after immersion in water for 24 hours
The property was verified by the test documented in [10]. Method used: test according to STN EN 317.
- 2.2.10 Resistance to axial withdrawal of screws
The property was verified by the test documented in [10]. Method used: test according to STN EN 320.
- 2.2.11 Density and bulk density
The property of the TETRA K board was verified by the test documented in [10]. Method used: test according to STN EN 323. The property of the polyurethane foam was verified by the test documented in [12]. Method used: test according to STN EN 1602.
- 2.2.12 Dimensional precision
The property was not verified. It shall be verified at an initial type test according to STN 73 0280.
- 2.2.13 Structural thermal resistance
The property of the TETRA K panel was verified by the test documented in [19]. Method used: calculation according to STN 73 0540-1 and STN EN 6946. The design value of thermal transmission coefficient for the TETRA K board was adopted from [20]. The design value of thermal transmission coefficient for the polyurethane foam was adopted from EN ISO 10456/AC: 2010, table 3.

3 Attestation of conformity and marking of products by the conformity label

3.1 Conformity attestation procedure

The product is, in accordance with Annex 1 of Decree of the Ministry of Construction and Regional Development of the Slovak Republic No. 558/2009 Coll. as amended by Decree No. 451/2011 Coll., enrolled in the group **2003**. The attestation of conformity is carried out in accordance with Section 7(1)(c) of Act No. 90/1998 Coll. as amended, i.e. declaration of conformity (system 3), from which the following roles and responsibilities ensue:

- a) Tasks of the manufacturer:
 - application of the system of internal company control;
 - implementation of the specified initial type testing;
 - issuance of a declaration of conformity.
- b) Tasks of the authorised body as a test laboratory:
 - implementation of the initial type testing.

3.2 Activities in terms of the tasks of the manufacturer and the authorised body

3.2.1 Manufacturer's activities

3.2.1.1 Internal control of the manufacturer

The manufacturer must implement internal control in accordance with Section 8 of Act No. 90/1998 Coll. on Construction Products as amended by later regulations.

3.2.2 Activities of the authorised person as a test laboratory:

3.2.2.1 Initial type test

Initial type testing shall be performed in accordance with Section 9(2, 3) of Act No. 90/1998 Coll. as amended by later regulations, sampling in accordance with Section 10. For the initial type testing, the properties listed in Table 1 shall be verified. Each declared value shall be accompanied by one test assessment.

Table 3 – Initial type testing

Property	Basic requirement	Number of measurements for test assessment	Test method/regulation	The criterion for conformity	The test shall be provided by
Fire resistance - non-load-bearing partition wall	b)	1	STN EN 1364-1 STN EN 13501-2	according to 2.1.1.1	AP
Release of dangerous substances	c)	-	according to 2.1.3	according to 2.1.1.2	M ^{**})
Water vapour diffusion - TETRA K board	c)	3	STN 73 2580	according to 2.1.1.3	M
Diffusion resistance factor - polyurethane foam	c)	10	STN EN 12086	according to 2.1.1.4	AP
Adhesion of TETRA K board to polyurethane foam core	d)	5	STN 73 2577	according to 2.1.1.5	AP
Bending strength - TETRA K board	d)	3	STN EN 310	according to 2.1.1.6	AP
Bending modulus - TETRA K board	d)	3	STN EN 310	according to 2.1.1.7	AP
The tensile strength perpendicular to the plane of the board	d)	3	STN EN 319	according to 2.1.1.8	AP
Swelling in thickness after immersion in water for 24 hours	d)	3	STN EN 317	according to 2.1.1.9	AP
Resistance to withdrawal of screws	d)	3	STN EN 320	according to 2.1.1.10	AP
Density - TETRA K board	d)	3	STN EN 323	according to 2.1.1.11	AP
Bulk density - polyurethane foam	d)	10	STN EN 1602	according to 2.1.1.11	AP
Dimensional precision	d)	3	STN 73 0280	according to 2.1.1.12	M [*])
Structure thermal resistance	f)	-	according to 2.1.13	according to 2.1.1.13	M [*])
*) AP – authorised person) M – manufacturer					

In the assessment of conformity the authorised person accepts the results of testing carried out within the scope of issuance of this Technical Approval.

In case of changes in production compared to the situation at the time of issuance of this Technical Approval, the initial type testing needs to be repeated.

3.3 Labelling by conformity label and product identification

The manufacturer shall label a product by the CSK conformity label in accordance Section 8 of Act No. 90/1998 as amended by later regulations and Annex 2 of Decree of the Ministry of Transport, Construction and Regional Development of the SR No. 558/2009 Coll. establishing the list of construction products that need to be labelled, systems of attestation of conformity and details of the use of conformity labels, as amended by Decree no. 451/2011 Coll.

The specified label along with additional data shall be placed by the manufacturer on the TETRA K panel.

The manufacturer may, in accordance with Annex 2 of Decree of the Ministry of Construction and Regional Development of the Slovak Republic No. 558/2009 Coll. as amended by Decree No. 451/2011 Coll., use a conformity label with minimum accompanying data.

Example of conformity label:

<h1 style="font-size: 48px; margin: 0;">C_{SK}</h1>	
KURUC – COMPANY spol. s r. o. 941 42 Velké Lovce 393 XX (the last two digits of the year of attaching the C _{SK} label)	
TA – yy/nnnn TETRA K Panel For the construction of interior and exterior non-load-bearing wall structures of residential and non-residential buildings. They are not suitable for the construction of walls exposed to long-term influence of humidity and direct effect of water.	
Fire resistance	- partition wall E 60 / EI 60 / EW 60 - exterior wall E 60 (o↔i) / EI 60 (o↔i) / EW 60 (o↔i)
Adhesion of TETRA K boards to the polyurethane core	min. 0.05 MPa
Release of dangerous substances Water vapour diffusion complies –	
TETRA K board	0,00132.10 ⁹
Diffusion resistance factor – polyurethane foam	104
TETRA K board	
- bending strength	min. 5 MPa
- bending modulus	min. 650 MPa
- tensile strength perpendicular to the plane of the board	min. 0.05 MPa
- the thickness swelling after immersion in water max. 25 % after 24 hours	
- resistance to axial withdrawal of screws min. 35 N/mm	
- density	min. 580 kg/m ³
Bulk density - polyurethane foam	50 kg/m ³ ± 5 kg/m ³
Dimensional precision – TETRA K panel	
- thickness	± 2 mm
- width and length	± 5 mm
- panel surface curve	± 2 mm
- rectangularity, difference of diagonals	± 10 mm
structural thermal resistance - TETRA K panel according to 2.1.1.13	

COMMENT. - The conformity label needs to be produced for each product separately, taking into account the particular values of individual product properties.

Conformity label with the minimum accompanying data:

C_{SK}
KURUC – COMPANY spol. s r. o. 941 42 Veľké Lovce 393 XX (the last two digits of the year of attaching the C _{SK} label)
TA – yy/nnnn

4 Conditions under which the suitability of a product is positively assessed for its intended use in the building

4.1 Manufacturing

Product – TETRA K panel - is produced in accordance with the submitted technical documentation specified in Annex 3. The manufacturing methods used ensure that the product properties comply with this Technical Approval.

4.2 Product transport and storage

Manufacturer's instructions for transport and storage are specified in [1]. The panels shall be stored on pallets in a lying position for the maximum of thirty pieces per pallet. Such stored panels shall be transported by railway wagons or road vehicles. During transport and storage panels are protected by film. When handling the panels, it is not permitted to lift panels by holding the top TETRA K board. The panels shall be transported vertically.

4.3 Product integration

4.3.1 Design recommendations by the manufacturer

Designing of buildings shall be subject to compliance with the provisions of Decree of the Ministry of Interior of the Slovak Republic No. 94/2004 Coll. laying down technical requirements for fire safety during the construction and use of buildings as amended by Decree 307/2007 Coll.

4.3.2 Manufacturer recommendations for product application

Manufacturer recommendations for product application are specified in [18].

4.3.3 Manufacturer recommendations for product maintenance

The manufacturer does not provide recommendations for product maintenance.

4.3.4 Manufacturer responsibility for providing information

The manufacturer shall be liable for providing the information stated on the front page of the Specific Conditions in parts 1, 2, 4.2 and 4.3 of this Technical Approval to all persons for whom the information is relevant. This information may be provided in the form of copies of the specified parts of the Technical Approval. These copies, pursuant to Article 4 of the General Terms and Conditions, shall be labelled as "incomplete copy", a written consent of the Approval Body, however, is not required in these cases.

The manufacturer shall be liable for stating all the data according to section 3.3 on the package label of the product and providing guidance for the product application.

In Bratislava xx. xx. 2012

prof. Ing. Zuzana Sternová, PhD.
Head of the Approval Body OM 04

List of annexes

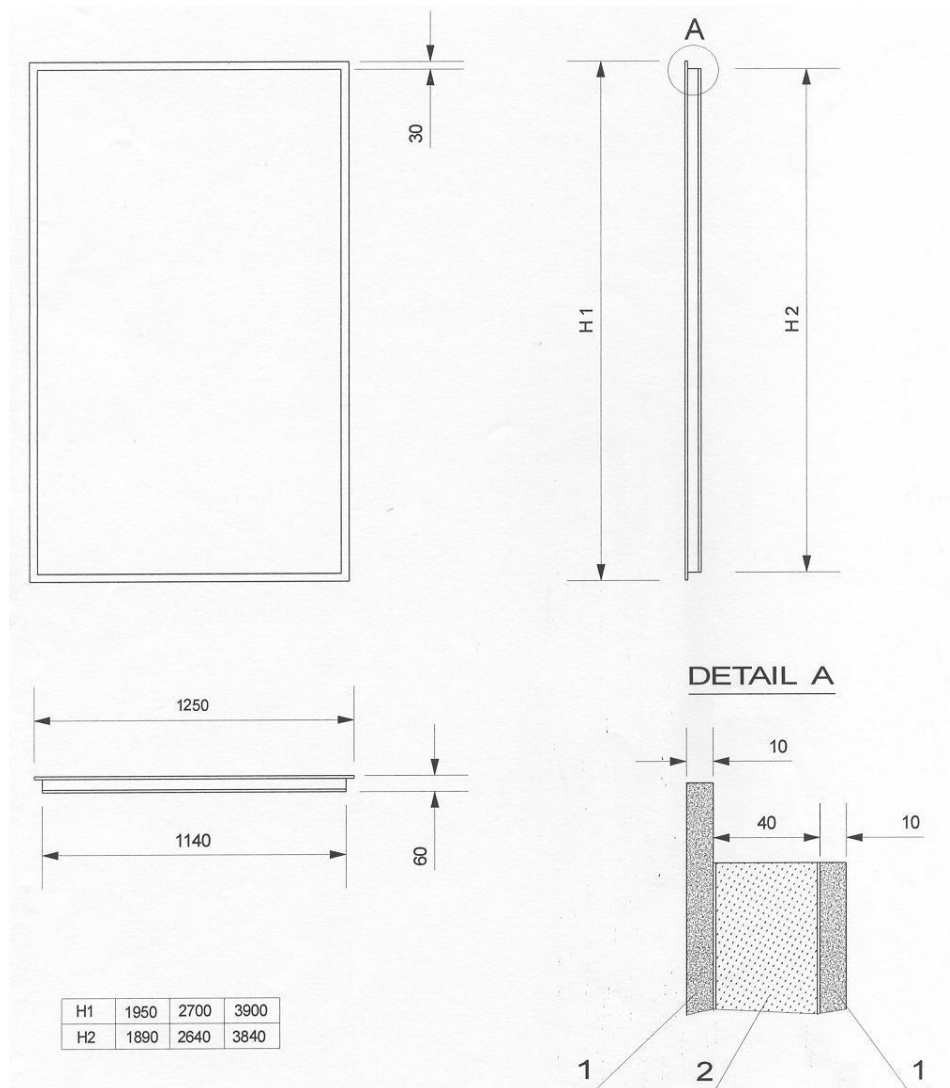
- Annex 1** Shape and dimensions of TETRA K panel
- Annex 2** List of quoted and related acts, decrees, technical standards and regulations
- Annex 3** List of quoted and related documents used for the preparation of the Technical Approval

Draft Technical Approval was prepared based on the application no. O04/11/0201/2003
Prepared by: Ing. Daniel Bebej, PhD., Building Testing and Research Institute, branch Zvolen.

Processed on behalf of the Approval Body:
Degree, Name, Surname

Annex 1

Shape and dimensions of TETRA K panel



- 1 – TETRA K board
2 - polyurethane foam

Figure 1 - Shape and standard dimensions of TETRA K board 60 mm thick

Table 4 - Dimensions and tolerances of TETRA K panels

Thickness mm		Width mm		Length mm		Panel surface curve mm	Rectangularity
Dimension	Tolerance	Dimension	Tolerance	Tolerance	Dimension		Difference of diagonals mm
As of 40 within 120	±2	1,250	±5	±5	1,200 1,950 2,700 3,900	±2	±10

Annex 2

List of quoted and related acts, decrees, technical standards and regulations

Act of the National Council of the Slovak Republic No. 90/1998 Coll. on Construction Products as amended by later regulations

Act of the National Council of the Slovak Republic No. 67/2010 Coll. on the Conditions of Introduction of Chemical Substances and Chemical Preparations to the Market and on amending and supplementing certain acts (Chemical Act)

Decree of the Ministry of Transport, Construction and Regional Development of the SR No. 558/2009 Coll. establishing the list of construction products that need to be labelled, systems of attestation of conformity and details of the use of conformity labels, as amended by Decree no. 451/2011 Coll.

Decree of the Ministry of Interior No. 94/2004 Coll. defining the technical requirements with respect to fire safety during construction works and use of buildings as amended by Decree No. 307/2007 Coll.

Decree of the Slovak Occupational Safety Office and the Slovak Mining Office No. 374/1990 Coll. on Safety of Work and Technical Equipment during Construction Works

STN 73 0280: 1986 Accuracy of geometric parameters in construction. Checking the accuracy of sizes and shapes of structural components (73 0280)

STN 73 0540-1: 2002 Thermo-technical properties of engineering structures and buildings. Thermal protection of buildings. Part 1: Terminology (73 0540)

STN 73 2577: 1981 Test for surface finish adhesion of building structures to the base (73 2577)

STN 73 2580/Z1: Testing of water vapour permeability through surface finish of building structures (73 2580)

STN EN 310: 1998 Wood-based panels. Determination of modulus of elasticity in bending and of bending strength (49 0147)

STN EN 323: 1996 Wood-based panels. Determination of density (49 0142)

STN EN 319: 1995 Particleboards and fibreboards. Determination of tension strength perpendicular to the board plane (49 0151)

STN EN 320: 2011 Particleboards and fibreboards. Determination of resistance to axial withdrawal of screws (49 0155)

STN EN 335-3: 1997 Durability of wood and wood-based products. Definition of hazard classes of biological attack. Part 3: Application to wood-based panels (49 0660)

STN EN 1602+AC:1999 Thermal insulating products for building applications. Determination of the apparent (bulk) density (72 7046)

STN EN 12086: 2000 Thermal insulating products for building applications. Determination of water vapour permeability

STN EN 317: 1995 Particleboards and fibreboards. Determination of swelling in thickness after immersion in water (49 2610)

- STN EN 1364-1: 2001 Fire resistance tests for non-structural elements. Part 1: Walls (92 0809)
- STN EN 13501-1+A1: 2010 Fire classification of construction products and building elements. Part 1: Classification using data from fire resistance tests (Consolidated text) (92 0850)
- STN EN 13501-2+A1: 2010 Fire classification of construction products and building elements. Part 2: Classification using data from fire resistance tests (Consolidated text)
- STN EN ISO 6946: 2008 Building structures. Thermal resistance and thermal transmittance. Calculation method (ISO 6946: 2007) (73 0559)
- STN EN ISO 10456/AC: 2010 Building materials and products. Hydrothermal properties. Tabulated design values and procedures for determining declared and design thermal values (ISO 10456: 2007) (73 0566)

Annex 3

List of quoted and related documents used for the preparation of the Technical Approval¹⁾

- [1] Description of the manufacturing process to produce TETRA K panels. Published by the manufacturer KURUC Company, spol. s r. o., Nové Zámky, November 2011
- [2] Description of the manufacturing process to produce TETRA K boards. Published by the manufacturer KURUC Company, spol. s r. o., 21 March 2007
- [3] Decision No. 10469/98-SOZO/ŠZÚ SR. Statement by the Chief Hygienist on the construction product of TETRA K board. Published by the Ministry of Health of the Slovak Republic, the Chief Hygienist, Bratislava, 30 June 1998
- [4] Safety Data Sheet for the product Baymer® S (M2326) - a fully formulated polyol component for the production of polyurethane foams. Issued by the manufacturer BaySystems CentralEurope a. s., Želkovice 180, 507 77 Cerekvice nad Bystřicí, Czech Republic, 8 April 2008
- [5] Safety Data Sheet for the product DESMODUR 44 V 20 L - di-/polyisocyanate component for the production of polyurethanes. Issued by Bayer MaterialScience AG, BMS-IO-S&T-PSRA-PSI Product Safety, D- 51368 Leverkusen, Nemecko, 11 October 2012
- [6] Safety Data Sheet for the product Kronores CB 3006F - MUF glue for the production of agglomerated wood-based materials. Issued by DIAKOL STRÁŽSKE s. r. o., Priemyselná 720, 072 22 Strážske, 10 December 2012
- [7] Certificate No. 00017/110/2/2002 for the product: recycled paper LPP Recy. For the manufacturer Ludoprint, a. s., Bobot issued by Výskumný ústav papiera a celulózy, a. s., Bratislava, 18 June 2001
- [8] Certificate No. 00645/110/2/2002 for the product: LDPE film for packaging purposes. For the manufacturer Sagoplast, s. r. o., Poľný Kesov issued by VÚSAPL, a. s., Nitra, 10 July 2002
- [9] Test report no. 40-12-0246 - water vapor permeability of an insulating board of sprayed polyurethane foam. Issued by Technický a skúšobný ústav stavebný, n. o. (Building Testing and Research Institute), the testing laboratory of branch Nitra, 23 May 2012
- [10] Test report no. 50-07-0114 - coherence of the TETRA board with polystyrene, density, bending strength, flexural modulus, the tensile strength perpendicular to the board plane, swelling in thickness after immersion in water, resistance to axial withdrawal of screws. For the manufacturer Kuruc Company spol. s r. o., 941 42 Veľké Lovce 393 issued by Technický a skúšobný ústav stavebný, n. o. (Building Testing and Research Institute), the testing laboratory of branch Zvolen, 18 June 2007
- [11] Test report no. 50-12-0025 – surface finish adhesion of building structures to the base, issued by Technický a skúšobný ústav stavebný, n. o. (Building Testing and Research Institute), the testing laboratory of branch Zvolen, 23 April 2012
- [12] Test report no. 50-12-0057 – bulk density of the thermal insulation board of polyurethane foam, issued by Technický a skúšobný ústav stavebný, n. o. (Building Testing and Research Institute), the testing laboratory of branch Zvolen, 25 June 2012
- [13] Declaration of origin of the combined waste for the production of TETRA K boards. Issued by Tetra Pak - Grafobal, spol. s r. o., Skalica, 23 February 1996

¹⁾ The documents (originals or copies) are archived at Technický a skúšobný ústav stavebný, n. o., branch Zvolen.

- [14] Declaration of the manufacturer on the content of hazardous substances for the product TETRA K panel. Issued by the manufacturer Kuruc Company spol. s r. o., 393, 9410 42 Veľké Lovce
- [15] Test report no. FIRES-FR-131-12-AUNS - fire resistance of a non-bearing wall made of TETRA K panels. Issued for the manufacturer Kuruc Company, spol. s r. o., 941 42 Veľké Lovce 393, by FIRES, s. r. o., authorised person SK 01, Batizovce, 16 July 2012
- [16] Test report no. FIRES-FR-131-12-AUNS - fire resistance of a non-bearing wall made of TETRA K panels. Issued for the manufacturer Kuruc Company, spol. s r. o., 941 42 Veľké Lovce 393, by FIRES, s. r. o., authorised person SK 01, Batizovce, 30 August 2012
- [17] Test report no.80/96 - Determination of thermal diffusion of water vapour. For František Kurucz, Veľké Lovce 392 issued by Technický a skúšobný ústav stavebný, n. o. (Building Testing and Research Institute), the state testing site SKTC-105, branch Tatranská Štrba 16 August 1996
- [18] Work procedure – recommended use of TETRA K panels. Issued by the manufacturer KURUC Company, spol. s r. o., Nové Zámky, 28 March 2007
- [19] Report no. 50/067/09/12 – Calculation of the thermal resistance of non-bearing wall panels TETRA K. For the manufacturer Kuruc Company spol. s r.o. issued by Technický a skúšobný ústav stavebný, n. o.(Building Testing and Research Institute), testing laboratory of branch Zvolen, 26 September 2012
- [20] Report No. 40/96/0154 on prototype tests of the material TETRA - K1, TETRA - K2, for František Kurucz, 941 42 Veľké Lovce 392 issued by Technický a skúšobný ústav stavebný, n.o. (Building Testing and Research Institute), branch Nitra 14 August 1996