



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

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**Authorised Body No. 204 empowered by the Decision of the ÚNMZ
No. 5/2017
Branch 0300 – Plzeň
Issues**

Pursuant to the provisions of Act No. 22/1997 Coll., on Technical Requirements for Products and on Amendment to Certain Other Acts, as amended, and § 2 and 3 of Government Regulation No. 163/2002 Coll., as amended by Government Regulation No. 312/2005 Coll. and by Government Regulation No. 215/2016 Coll.

TECHNICAL BUILDING APPROVAL

No. 030 – 059824

On product:

Ceramic fittings

Applicant:

LASSELSBERGER, s. r. o.

Business ID: 25238078
Address: 320 00 Plzeň, Adelova 2549/1
Manufacturer: LASSELSBERGER, s. r. o.
Address: 320 00 Plzeň, Adelova 2549/1
Plant: LASSELSBERGER, s. r. o.
Address: 320 00 Plzeň, Adelova 2549/1
Order No: Z030140069

the Authorised Body No. 204 hereby certifies the correctness of technical data of the product, their values and procedures of checking their compliance with the basic requirements stipulated by Annexe 1 to Government Regulation No. 163/2002 Coll., as amended by Government Regulation No. 312/2005 Coll.

This approval serves as technical specification for assessment of the conformity of the said product.

No. of pages of the Technical Building Approval including the title page: 4

Author of this Technical Building Approval:


Ing. Hana Kotorová
Head Assessor

Approval validity till: **30nd June 2023**

Person responsible for correctness of this Technical Building Approval:


Signature and seal of Authorised entity No. 204

Plzeň, on 1st June 2020


Ing. Alexander Trinner
Deputy Manager of Authorised Body No. 204

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1 Product Description and Specification of its Use on Site

Ceramic fittings are divided into three groups as follows:

- ◆ Ceramic fittings with water absorption up to 3%, dry glazed (group Blb), which are suitable for tiling of showers, tubs and pools, suitable for various uses: e.g. medicinal applications, food and chemical industries, etc. The group contains shape tiles, stair tiles, skirting, corners, running and continuous edges, accessibility shape tiles, border pieces, etc.
- ◆ Ceramic fittings with water absorption up to 0.5%, dry pressed, both glazed and non-glazed (group Bla), which are suitable for special shape applications at internal and external tiling of indoor as well as outdoor walls and floors, facades, pools, etc. The group contains shape tiles, balcony shape tiles, stair tiles, skirting, corners, moulds, accessibility shape tiles, border pieces, etc.
- ◆ Ceramic fittings with water absorption up to 0.5%, extruded, glazed (group Ala), which are suitable for applications such as tiling and flooring of pools indoor and outdoor, public and private. They represent specialty pool ceramic systems that incorporate tiling of the side walls and bottom of the pool, special shape pieces for overflow edges and flutes, a set of rounded edges, etc.

2 Specification of Measured Properties and Method of Assessment

Table 1:

No.	Property	Test procedure	number of samples		required (P)/ declared (D) values
			T	D	
1	Geometric parameters	ČSN EN ISO 10545-2	10	-	The deviation of the average size for each tile from the work size: $\pm 2,0\%$ The deviation of the average size for each tile from the average size of the 10 test specimens: $\pm 1,5\%$ Thickness – the deviation in % the average thickness of each tile from the work size: $\pm 10\%$
2	Surface quality	ČSN EN ISO 10545-2	30	-	A minimum of 95 % of the tiles shall be free from visible defects that would impair the appearance of a major area of tiles
3	Water absorption	ČSN EN ISO 10545-3	5	-	average $\leq 0,5\%$, individual max. 0,6 % $0,5\% < \text{average} \leq 3,0\%$, individual max. 3,3% (boiling method)
4	Breaking strength, modulus of rupture	ČSN EN ISO 10545-4	7	-	average min. 28 MPa modulus of rupture individual min. 1300 N (for thickness $\geq 7,5$ mm) $0,5\% < \text{average} \leq 3,0\%$, individual

						max. 3,3%
5	Scratch hardness of surface according to Mohs	ČSN EN 101 (ČSN 72 5126)	3	-		scratch min. 5. degree
6	Resistance to thermal shock (glass surfaces)	ČSN EN ISO 10545-9	5	-		no visible changes
7	Chemical resistance	ČSN EN ISO 10545-13	5	-		min. class B
8	Resistance to stains	ČSN EN ISO 10545-14	5	-		no visible changes
9	Resistance to deep abrasion (unglazed tiles)	ČSN EN ISO 10545-6	5	-		max. 275 mm ³
10	Coefficient of linear thermal expansion	ČSN EN ISO 10545-8	2	-		max. $9 \times 10^{-6} K^{-1}$
11	Lead and cadmium given off	ČSN EN ISO 10545-15	5	-		volume Pb: max. 0,8 mg/dm ² volume Cd: max. 0,07 mg/dm ²
12	Slipperiness	ČSN P CEN/TS 16165 DIN 51130	6	-		according to the declaration and use
13	Radioactivity	SÚJB recommendation	2	-		regulation SÚJB 422/2016 Coll. as amended the weight activity index $1,0^{1)} \leq 1$
14	Reaction to fire	ČSN EN 13501-1	1	-		2)

Note: T - verification / assessment of product conformity (§ 7); D - not performed

1) Applies only to building materials according to § 9 par. 2 let. j) of the Atomic Act according to Annex No. 28 to Decree No. 422/2016 Coll. - compliance with the requirement of a reference level of 1 mSv / year (the criterion for evaluating the results is the value of the mass activity index equal to 1, a value higher than 1 does not meet the requirement. Applies to residential and residential buildings.

2) For elements which are classified in reaction to fire class A1 without testing on the basis of Commission Decision 96/603 / EC, as amended, it is not necessary to perform these tests.

Other properties TN 11.01.05 and TN 11.04.06 do not apply to products.

3 Manufacturing Management System Assurance

The requirements for the manufacturing management system are specified in Annexe 3 to Government Regulation No. 163/2002 Coll., as amended by later regulations.

4 Materials Submitted by Applicant

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5 Survey of Applied Technical Regulations, Technical Standards and Other Documents

- ◆ Decree No. 422/2016 Coll., On radiation protection and security of a radionuclide source
- ◆ Government Regulation No. 163/2002 Coll., Which lays down technical requirements for selected construction products, as amended

- ◆ Act No. 22/1997 Coll., On Technical Requirements for Products and on Amendments to Certain Acts, as amended ČSN EN ISO 10545-2 Ceramic tiles. Part 2: Determination of dimensions and surface quality,
- ◆ ČSN EN ISO 10545-3 Ceramic tiles. Part 3: Determination of water absorption, apparent porosity, apparent relative density and bulk density,
- ◆ ČSN EN ISO 10545-6 Ceramic tiles. Part 6: Determination of resistance to surface abrasion for unglazed tiles,
- ◆ ČSN EN ISO 10545-8 Ceramic tiles. Part 8: Determination of linear thermal expansion
- ◆ ČSN EN ISO 10545-9 Ceramic tiles. Part 9: Determination of resistance to thermal shock
- ◆ ČSN EN ISO 10545-13 Ceramic tiles. Part 13: Determination of chemical resistance,
- ◆ ČSN EN ISO 10545-14 Ceramic tiles. Part 14: Determination of resistance to stains,
- ◆ ČSN EN ISO 10545-11 Ceramic tiles. Part 11: Determination of crazing resistance for glaze tiles,
- ◆ ČSN EN ISO 10 545 – 15 Ceramic tiles. Part 15: Determination of lead and cadmium given off by glazed tiles,
- ◆ ČSN P CEN/TS 16165 Determination of slip resistance of pedestrian surfaces – Methods of evaluation
- ◆ ČSN 72 5126 (od 05/2020 replaces from ČSN EN 101) Ceramic tiles - Determination of surface hardness according to Mohs
- ◆ Protocol of content of natural radioactive nuclides in construction prepared by TZÚS s.p., Praha branch Teplice
- ◆ TN 11.01.05 Ceramic tiles floor
- ◆ TN 11.04.06 Ceramic tiles wall

6 Verification Tests

For issuing technical building approval validation tests have been performed.

7 Detailed Requirements for Conformity Assessment

The product is classified in Annexe 2, product group 11, seq. 1, 4 of Government Regulation No. 163/2002 Coll., as amended by Act. No. 312/2005 Coll.

