



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

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L 1018.3

TEST REPORT

issued by Testing Laboratory No. 1018.3
accredited pursuant to ČSN EN ISO/IEC 17025:2005 by Czech Accreditation Institute

No. 030 – 058713

**on determination of tests ceramic tiles EN 14411:2017 ed. 3, dry-pressed
Group Bla, Annex G**

Ordering Party: LLC «Samarskij Stroyfarfor»
Address: 443528, Samara region, Volzhsky district,
Stroykeramika settlement
Russian Federation
Company ID: 6367006248
Manufacturer: LLC «Samarskij Stroyfarfor»
Address: 443528, Samara region, Volzhsky district,
Stroykeramika settlement
Russian Federation
Test sample: Ceramic tiles EN 14411:2017 ed. 3, dry-pressed Group Bla,
Annex G
Order No.: Z030 19 0204

Number of pages of the Test Report incl. title page: 5

Pages of Annexes: -

Prepared by:

Ing. Hana Kotorová

specialist

Approved by:

Vít Ruml

head of the testing department

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Plzeň, on 19.07.2019

razítko zkušební laboratoře č. 1018.3

Declaration: 1) The test results in this Report relate only to the tested article and they do not substitute any other documents
2) The Test Report must be copied as a whole only otherwise a written consent of the testing laboratory is needed.

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Entered in the Commercial Register maintained by Municipal Court in Prague, Section ALX, Insert 711, Comp. ID: 00015679, VAT: CZ00015679

1 Sample data

Evidence Number: **Dimension: 600/600 mm**
G41/AMR/VZ030 190388; G1101/MR/VZ030 190389, G110/PR/VZ030
190390, G1104/CR/VZ030 190391; K 900/LR/VZ030 190392;
K1005/SR/VZ030 190393

Dimension: 300/600 mm
G41/AMR/VZ030 190394; G1101/MR/VZ030 190395, G110/PR/VZ030
190396, G1104/CR/VZ030 190397; K 900/LR/VZ030 190398;
K1005/SR/VZ030 190399

Sample: Ceramic tiles declaration: EN 14411:2017 ed. 3, dry-pressed
Group Bla, Annex G

Order: Z030190204

Date of sampling/sample delivery: 3.6.2019

Sampling place distribution warehouse

Sampling method random choose

2 Test methods

EN ISO 10545-4 :2014 Ceramic tiles – Part 4: Determination of modulus of rupture and breaking strength

EN ISO 10545-12:2002 Ceramic tiles – Part 12: Determination of frost resistance

EN ISO 10545-15:1998 Ceramic tiles – Part 15: Determination of lead and cadmium given off glazed tiles

PCEN/TS 16165:2013 Determination of slip resistance of pedestrian surfaces

3 Test results

The tests were carried out on: 6/2019 – 7/2019

The tests were performed by: Ing. Hana Kotorová

Date about person performing the test, testing equipment and about test conditions are listed in test minutes. All measurement and test equipment are calibrated according to valid plan of the testing department.



3.1 Determination of frost resistance to EN ISO 10545-12:2002

no. sample: K1005/SR/ VZ030 190399 (dimension: 300/600 mm)

No.	sample weight [g]				Water absorption [%]		Description defects		
	befor freezing		after freezing		befor freezing	after freezing	befor freezing	after freezing	
	dry	saturated	dry	saturated					
1	4045,59	4054,14	4049,22	4053,42	0,21	0,10	0	0	
2	4061,96	4076,73	4065,10	4069,22	0,36	0,10	0	0	
3	4039,36	4045,71	4043,60	4046,79	0,16	0,08	0	0	
4	4080,37	4087,97	4083,82	4086,36	0,19	0,06	0	0	
5	4060,70	4061,11	4060,41	4061,75	0,01	0,03	0	0	
6	4040,36	4046,12	4043,15	4046,99	0,14	0,09	0	0	
7	4079,30	4086,80	4082,70	4085,30	0,18	0,06	0	0	
8	4046,60	4055,15	4048,95	4054,40	0,21	0,13	0	0	
9	4060,86	4073,88	4065,15	4068,39	0,32	0,08	0	0	
10	4040,20	4046,82	4043,82	4047,83	0,16	0,10	0	0	
The number of damaged tiles after 100 cycles								-	-

3.2 Determination of modulus of rupture and breakig strength to EN ISO 10545-4:2014

no. sample: G1101/MR/ VZ030 190395 (dimension: 300/600 mm)

Distance retaining lip L [mm]:	580
The diameter of the blades d [mm]:	20
The distance between the edge and the edge l [mm]:	10
The thickness of the rubber t [mm]:	5,0

Nr.	Width examination sample [mm]	Smallest thickness h [mm]	fracture strength in the moment breach F [N]	breaking strength S [N]	modulus of rupture R [MPa]
1	298,4	9,3	1550	3013	52,0
2	298,4	9,3	1310	2546	43,9
3	298,5	9,3	1450	2818	49,2
4	298,4	9,4	1550	3012	51,1
5	298,4	9,5	1630	3168	52,5
6	298,4	9,4	1540	2993	50,8
7	298,4	9,4	1560	3032	51,7
Average:				2940	50,2



3.3 Determination of lead and cadmium given off by glazed tiles

no. sample: K 900/LR/VZ030 190398, dimension: 300/600 mm

no.	Testing area [dm ²]	Volume [ml]	Fixed concentration		Surface concentration	
			Pb [mg/l]	Cd [mg/l]	Pb [mg/dm ²]	Cd [mg/dm ²]
		acetatic acid				
1	3,71	150	0,125	0,043	0,0051	0,0017
2	4,02	150	0,173	0,007	0,0065	0,0003
3	4,30	150	0,133	0,009	0,0046	0,0003
Average			0,144	0,020	0,0054	0,0008

3.4 Determination of slip resistance of pedestrian surfaces to PCEN/TS 16165

The determination was carried out in compliance with the following testing method:
P CEN/TS 16165:2013 Determination of slip resistance of pedestrian surfaces – Methods of evaluation

DIN 51097:1992 Testing of floor coverings; determination of the anti-slip properties; wet – loaded barefoot areas; walking method – ramp test

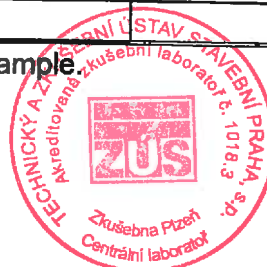
DIN 51130:2014 Determination of the anti-slip property – Workrooms and fields of activities with slip danger – Walking method – Ramp test

Determination of friction – Method pendulum

Rubber: 96, temperature: 21°C

Sample dimension: 300/600 mm	Deviation of pendulum dry surfaces (average from 3 pcs.)	Deviation of pendulum wet surfaces (average from 3 pcs.)
G41 / AMR / VZ030 190394	68 ^{*)}	63 ^{*)}
G1101/ MR / VZ030 190395	55 ^{*)}	20 ^{*)}
G110 / PR / VZ030 190396	57 ^{*)}	20 ^{*)}
G1104 / CR / VZ030 190397	55 ^{*)}	20 ^{*)}
K 900 / LR / VZ030 190398	62 ^{*)}	20 ^{*)}
K1005 / SR / VZ030 190399	52 ^{*)}	30 ^{*)}

^{*)}Result is average from 5 measurements on one sample.



Determination of friction – Method of inclined platform – test shoes, barefoot

Sample dimension: 600/600 mm	Critical angle of slip classification according DIN 51097 barefoot classification	Critical angle of slip classification according; DIN 51130 shoes classification
G41 / AMR / VZ030 190388	23° B	35° R12
G1101 / MR / VZ030 190389	11° A	9° R9
G110 / PR / VZ030 190390	17° A	8° R9
G1104 / CR / VZ030 190391	21° B	9° R9
K 900 / LR / VZ030 190392	23° B	8° R9
K1005 / SR / VZ030 190393	21° B	18° R10

END OF THE TEST REPORT

