



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

Akreditovaná zkušební laboratoř, Autorizovaná osoba, Certifikační orgán, Inspekční orgán
Accredited Test Laboratory, Authorised Body, Certification Body, Inspection Body

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Poland

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PLZEŇ

030-056663/2018

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In the enclosure we send you Protocol No. 030 – 056663 on tests of ceramic tiles in English language.

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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 – 056663

from determination of anti-slip properties of ceramic tiles

Ordering Party: **CERSANIT S.A.**
Address: **Al. Solidarności 36, 25-323 Kielce, Poland**

Company ID: 5640001666

Manufacturer: **Cersanit III S.A.**
Address: **ul. Uczniowska 21, 58-306 Wałbrzych, Poland**

Test sample: Ceramic tiles : **PIETRA GREY 297x598mm**
G412 GRAPHITE 420x420mm – PROD
G412 GRAPHITE 420x420mm – TEST

Order No.: Z030 18 0194

Number of pages of the Test Report incl. title page: 4 Pages of Annexes: -

Prepared by:


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specialist

Approved by:


Vít Ruml

head of the testing department

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Plzeň, 2018-06-04

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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1 Initial Data

1.1 Assignment

- Execution of tests of slipperiness of ceramic tiles according the requirement of the client:
 - **determination of slipperiness – walking methods – ramp test** (barefoot method) according **P CEN/TS 16165 (annex A)**
 - **determination of slipperiness– pendulum test** according **P CEN/TS 16165 (annex C)** -in dry and in wet condition

1.2 Samples

- Sample specification: **Ceramic tiles dry-pressed, EN 14411, Annex G, group BI_a**,
type: **PIETRA GREY 297x598mm**
G412 GRAPHITE 420x420mm – PROD
G412 GRAPHITE 420x420mm – TEST
- Producer: **Cersanit III S.A., ul. Uczniowska 21, 58-306 Wałbrzych, Poland**
- Samples supplied on 29.5.2018.

2 Sampling Method

The test samples were supplied by the customers on 29.5.2018.

The samples were recorded this way:

under no. sample	VZ 030180506	PIETRA GREY 297x598mm
	VZ 030180507	G412 GRAPHITE 420x420mm – PROD
	VZ 030180508	G412 GRAPHITE 420x420mm – TEST

3 Testing Procedures

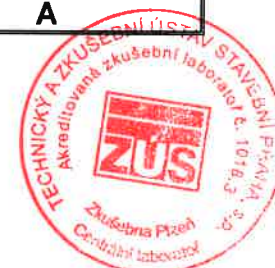
P CEN/TS 16165: 2013

Determination of slip resistance of pedestrian surfaces – Methods of evaluation

4 Measurements and Tests

4.1 Determination of slipperiness – walking methods – ramp test (wet-loaded barefoot areas method) P CEN/TS 16165 annex A

testing samples	Critical angle of slip classification according P CEN/TS 16165 (annex A)
PIETRA GREY 297x598mm sample no. VZ 030180506	14,4° A



4.2 Determination of slipperiness by method of pendulum test

P CEN/TS 16165 Used rubber: S4, slider IRHD 96 room temperature: 21°C

PIETRA GREY 297x598mm sample no. VZ 030180506	Pendulum deflection dry	Pendulum deflection wet
1	58 ^{*)}	27 ^{*)}
2	57 ^{*)}	26 ^{*)}
3	59 ^{*)}	28 ^{*)}
Average	58	27

^{*)}this value is always the average of 5 measurements

4.3 Determination of slipperiness by method of pendulum test

P CEN/TS 16165 Used rubber: S4, slider IRHD 96 room temperature: 21°C

G412 GRAPHITE 420x420mm – PROD sample no. VZ 030180507	Pendulum deflection dry	Pendulum deflection wet
1	60 ^{*)}	26 ^{*)}
2	60 ^{*)}	27 ^{*)}
3	60 ^{*)}	27 ^{*)}
Average	60	27

4.4 Determination of slipperiness by method of pendulum test

P CEN/TS 16165 Used rubber: S4, slider IRHD 96 room temperature: 21°C

G412 GRAPHITE 420x420mm – TEST sample no. VZ 030180508	Pendulum deflection dry	Pendulum deflection wet
1	57 ^{*)}	30 ^{*)}
2	57 ^{*)}	30 ^{*)}
3	58 ^{*)}	30 ^{*)}
Average	57	30



5 Conclusion

- 5.1 Based on the results of the test pursuant to P CEN/TS 16165 (Annex A) the tested samples of PIETRA GREY 297x598mm, produced in the Cersanit III S.A., ul. Uczniowska 21, 58-306 Wałbrzych, Poland, classified in group A and can be used for assembly of safe paving, e.g. the corridors for walking barefoot (mostly dry), joint and separate dressing rooms, bottom of pools in the area for non-swimmers, when the whole area of water depth greater than 80 cm, sauna and relaxation rooms (mostly dry) etc.)**

It should be pointed out that to ensure proper slip resistant function of pallet in the sense of stated conclusion, it is needed to maintain surface in clean conditions and without significant wear. On the flooring was tested slip, other properties were subject to determination.

- 5.2 The tested samples of ceramic tiles PIETRA GREY 297x598mm produced in the the Cersanit III S.A., ul. Uczniowska 21, 58-306 Wałbrzych, Poland, achieve slip resistance test according to P CEN/TS 16165 (Annex C) swing the pendulum method (average values: 58 (dry), 27 (wet)).**

It should be pointed out that to ensure proper slip resistant function of flooring in the sense of stated conclusion, it is needed to maintain surface in clean conditions and without significant wear. Other properties were not subject to testing.

- 5.3 The tested samples of ceramic tiles G412 GRAPHITE 420x420mm – PROD produced in the Cersanit III S.A., ul. Uczniowska 21, 58-306 Wałbrzych, Poland, achieve slip resistance test according to P CEN/TS 16165 (Annex C) swing the pendulum method (average values: 60 (dry), 27 (wet)).**

It should be pointed out that to ensure proper slip resistant function of flooring in the sense of stated conclusion, it is needed to maintain surface in clean conditions and without significant wear. Other properties were not subject to testing.

- 5.4 The tested samples of ceramic tiles G412 GRAPHITE 420x420mm – TEST produced in the Cersanit III S.A., ul. Uczniowska 21, 58-306 Wałbrzych, Poland, achieve slip resistance test according to P CEN/TS 16165 (Annex C) swing the pendulum method (average values: 57 (dry), 30 (wet)).**

It should be pointed out that to ensure proper slip resistant function of flooring in the sense of stated conclusion, it is needed to maintain surface in clean conditions and without significant wear. Other properties were not subject to testing.

END OF REPORT

