



**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 –055744**

**from determination of anti-slip properties of ceramic tiles**

Ordering Party: **Tubądzin Management Group Sp. z o.o.**  
Address: **Cedrovice Parcela 11, 95-035 Ozorków Poland**

Company ID: **732-20-83-952**

Manufacturer: **Tubądzin Management Group Sp. z o.o.**  
Address: **Cedrovice Parcela 11, 95-035 Ozorków Poland**

Test sample: Ceramic tiles from the collection: **Gris 333 x 333 mm**  
**Torano MAT 598 x 598 mm**  
**Pietrasanta MAT 598 x 598 mm**

Order No.: **Z030 17 0386**

Number of pages of the Test Report incl. title page: **3**      Pages of Annexes: **-**

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**Plzeň, on 9.10.2017**

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**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 DIN 51097, P CEN/TS 16165 (annex A)

### 1.2 Samples

Sample specification: **Ceramic tiles dry-pressed, EN 14411, Annex G, group BI<sub>a</sub>,**  
type: **Gris 333 x 333 mm**  
**Torano MAT 598 x 598 mm**  
**Pietrasanta MAT 598 x 598 mm**

Producer: **Tubądzin Management Group Sp. z o.o., Cedrovice Parcela 11, 95-035**  
**Ozorków Poland**

- Samples supplied on 29<sup>th</sup>September 2017

## 2 Sampling Method

The test samples were supplied by the customers on 29<sup>th</sup>September 2017.

The samples were recorded this way:

|                                      |                                     |
|--------------------------------------|-------------------------------------|
| under no. sample <b>VZ 030170986</b> | <b>Gris 333 x 333 mm</b>            |
| under no. sample <b>VZ 030170987</b> | <b>Torano MAT 598 x 598 mm</b>      |
| under no. sample <b>VZ 030170988</b> | <b>Pietrasanta MAT 598 x 598 mm</b> |

## 3 Testing Procedures

**DIN 51097**

Testing of floor coverings determination of anti – slip properties wet-loaded barefoot areas; walking method – ramp test

**P CEN/TS 16165**

Determination of slip resistance of pedestrian surfaces – Methods of evaluation

## 4 Measurements and Tests

**Determination of slipperiness – walking methods – ramp test (wet-loaded barefoot areas method) DIN 51097, P CEN/TS 16165 (annex A)**

| Testing samples                     | Critical angle of slip classification according DIN 51097, P CEN/TS 16165 (annex A) |          |
|-------------------------------------|-------------------------------------------------------------------------------------|----------|
| <b>Gris 333 x 333 mm</b>            | <b>17°</b>                                                                          | <b>A</b> |
| <b>Torano MAT 598 x 598 mm</b>      | <b>23°</b>                                                                          | <b>B</b> |
| <b>Pietrasanta MAT 598 x 598 mm</b> | <b>17°</b>                                                                          | <b>A</b> |



## 5 Conclusion

Based on the results of the test pursuant to DIN 51097, P CEN/TS 16165 (annex A) the tested samples of ceramic tiles from the collection **Torano MAT 598 x 598 mm** produced in the **Tubądzin Management Group Sp. z o.o.**, Cedrovice Parcela 11, **95-035 Ozorków** Poland classified **in group B** and can be used for assembly of safe paving, e.g. in showers, pool edges and bottoms in the zone for none-swimmers with depth under 80 cm, on stairs outside pools, etc. They can be used of ceramic tiles classified into group A is prescribed 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.)

Based on the results of the test pursuant to DIN 51097, P CEN/TS 16165 (annex A) the tested samples of **Gris 333 x 333 mm** and **Pietrasanta MAT 598 x 598 mm** produced in the **Tubądzin Management Group Sp. z o.o.**, Cedrovice Parcela 11, **95-035 Ozorków** 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 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**

