



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

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Accredited Test Laboratory, Authorised Body, Certification Body, Inspection Body

Branch 0300 – Plzeň

REPORT

No. 030 – 051633

on determination of slipperiness

Customer: **OLEJÁR, spol. s r.o.**
Nižná Polianka 65
086 36 Nižná Polianka, Slovakia

Order no.: – from 20. 5. 2015

Order No.: Z030150209

Enclosures: –

This Report has been made in duplicate. The first original copy is for the customer, the other will be filed along with other documentation in TZÚS Plzeň.

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Report Author

Person responsible for the correctness of this Report:

Plzeň 4th June 2015



Stamp TZÚS - Plzeň Branch

Ing. Alexander Trinner
Branch Manager

Statement:

- 1) The test results relate to the items under test (samples) only.
- 2) This report may not be reproduced otherwise than complete without the written consent of TZÚS.

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1 Initial Data

1.1 Assignment

- Execution of tests of slipperiness of flooring according the requirement of the client:
 - **determination of slipperiness – walking methods – ramp test** (shoes) according DIN 51130, P CEN/TS 16165 (annex B)

1.2 Samples

- Sample specification: Polyurethane Floorings
 - flooring: TPUP tactile warning plates
 - flooring: TPU tactile warning studs
 - flooring: TPU tactile guiding strips
 - flooring: TPUP tactile guiding plates
- Producer: OLEJÁR, spol. s r.o., Nižná Polianka 65, 086 36 Nižná Polianka, Slovakia
- Samples supplied on 10. 4. 2015.

2 Sampling Method

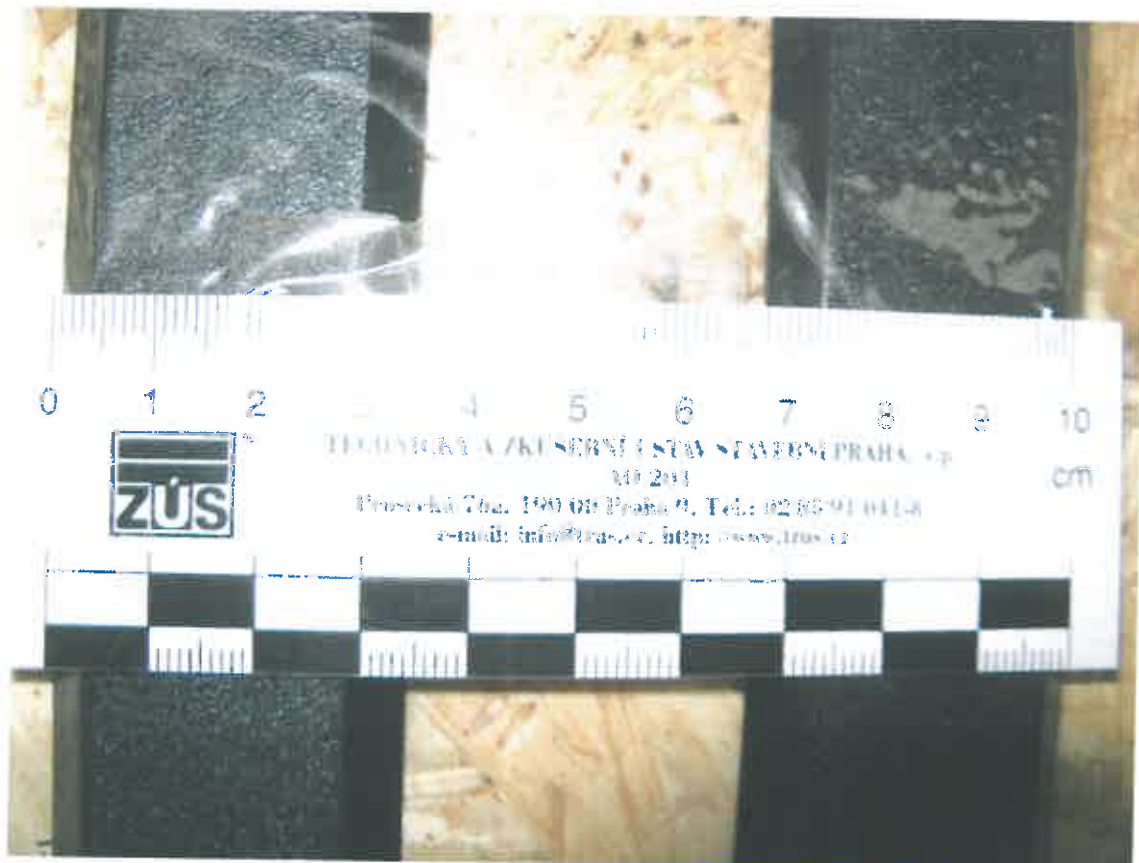
The test specimens of approximate overall dimensions of 60×100 cm were delivered by the customer to Plzeň Branch in four types. After takeover, the specimens were registered as follows: No. VZ 030150572



No. VZ 030150573

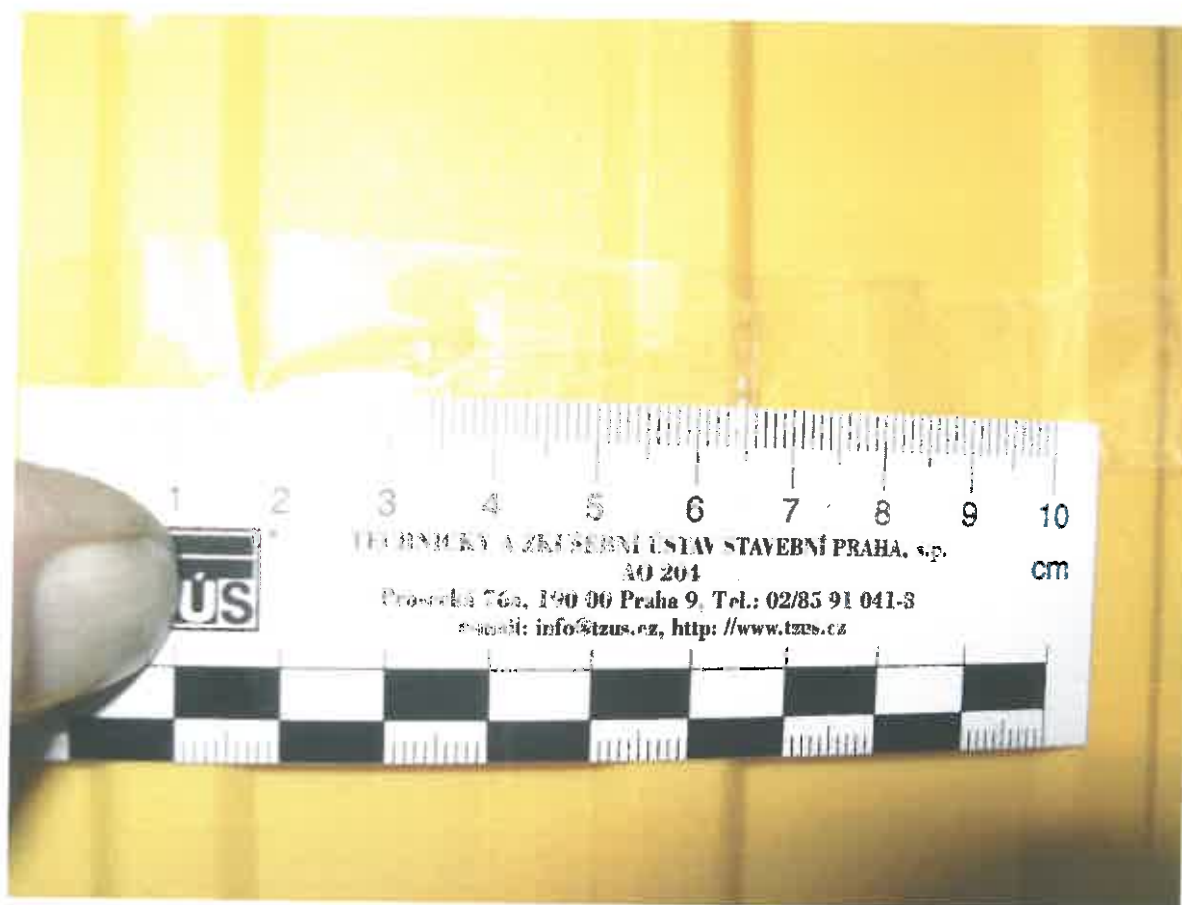


No. VZ 030150574



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As required by the customer, slip resistance was determined according to DIN 51130, ČSN P CEN/TS 16165 (Annex B). Other slip resistance testing methods (pendulum swing method, tribometric method, friction coefficient, ...) are not suitable for this flooring relief type as they would distort the results of the slip resistance tests of the face surface.



3 Testing Procedures

DIN 51130

Testing of floor coverings – Determination of the anti-slip property – Workrooms and fields of activities with slip danger – 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
DIN 51130, P CEN/TS 16165 (method B)**

Flooring designation	Critical angle of slip classification shoe
VZ 030150572 (TPUP tactile warning plates)	23,3° R11
VZ 030150573 (TPU tactile warning studs)	21,3° R11
VZ 030150574 (TPU tactile guiding strips)	14,7° R10
VZ 030150575 (TPUP tactile guiding plates)	17,5° R10



5 Conclusion

5.1

The polyurethane flooring under test **TPUP tactile warning plates, TPU tactile warning studs** manufactured by OLEJÁR, spol. s r.o., Nižná Polianka 65, 086 36 Nižná Polianka, Slovakia was classified according DIN51130, P CEN/TS 16165 (method B) into **Group R 11** and can be used to secure the assembly floor eg. for kitchens with a capacity of up to 100 meals a day, school kitchens, stores, factories juices etc.

The polyurethane flooring can also be used as Group R10 can therefore be used to construct safe floors, for instance in storerooms, kitchens where food is defrosted and heated, in sanitary rooms, in rooms where packaged meat is sold, etc.) and as Group R9 (to construct safe floors, for instance in rooms for medical diagnostic equipment, massage rooms, laboratories, etc.).

The flooring also **meets the requirements** specified in Art. 4.17 of ČSN 74 4505 Floors – **Common Provisions in accordance with Article 21(2),(3) of Regulation No. 268/2009 Coll., on technical requirements for products, for floors in all apartment and dwelling rooms that must conform to the value of slipping angle of at least 6°, and it also meets the requirements for floors in the parts of structures used by the public including shopping arcades and covered passageways that must conform to the value of slipping angle of at least 10°.**

To secure the proper slip-resistant function of the flooring in conformity with the conclusion above, one has to keep the surface clean and free from excessive wear. Other properties were not subject to the tests.

5.2

The polyurethane flooring under test - **TPU tactile guiding strips, TPUP tactile guiding plates** - manufactured by OLEJÁR, spol. s r.o., Nižná Polianka 65, 086 36 Nižná Polianka, Slovakia, was classified according DIN51130, P CEN/TS 16165 (method B) into **Group R 10** during the test carried out according to DIN 51130 and can therefore be used to construct safe floors, for instance in storerooms, kitchens where food is defrosted and heated, in sanitary rooms, in rooms where packaged meat is sold, etc.); and can also be used as Group R9 (to construct safe floors, for instance in rooms for medical diagnostic equipment, massage rooms, laboratories, etc.).

The flooring also **meets the requirements** specified in Art. 4.17 of ČSN 74 4505 Floors – **Common Provisions in accordance with Article 21(2),(3) of Regulation No. 268/2009 Coll., on technical requirements for products, for floors in all apartment and dwelling rooms that must conform to the value of slipping angle of at least 6°, and it also meets the requirements for floors in the parts of structures used by the public including shopping arcades and covered passageways that must conform to the value of slipping angle of at least 10°.**

To secure the proper slip-resistant function of the flooring in conformity with the conclusion above, one has to keep the surface clean and free from excessive wear. Other properties were not subject to the tests.

END OF REPORT

