



**QMS-F30-DIN  
DIN EN 16165:2023-02 WMG Test  
Report:  
WMG-25072201**

**Walkway Management Group**  
400 Gerault Road  
Flower Mound, TX. 75028  
Phone 469.426.5534  
www.walkwaymg.com

**Test Requested By: Mincey Marble**  
**Amber Green/ Business Services Manager**



**Test Method: DIN EN 16165:2023-02 Annex A Barefoot ramp test**

**Determination of Slip Resistance of Pedestrian Surfaces – Methods of Evaluation**

Informal Test Method Description: **Mincey Marble** requested the DIN EN 16165:2023-02 Annex A method be performed on a sample surface as provided by the customer, as received **in July 2025** and the results of this testing be supplied in a report. The test method covers the procedure for measuring the angle of slip while walking barefoot on a surface using a level and platform.

**1.0 Definition of Terms:**

- 1.1 Surface Friction: is the resistance of movement along a surface.
- 1.2 Angle of slip: Lowest angle of the inclined ramp at which the test person reaches the limit of safe walking when slipping occurs.

**2.0 Apparatus:**

- 2.1 Gabbrielli Technology Platform
- 2.2 Digital level; Calibrated: **May 01, 2025**
- 2.3 Safety harness and belt
- 2.4 Electric Immersion Water Heater with Digital LCD Thermometer
- 2.5 Digital Temperature Controller Thermostat

**3.0 Materials:**

- 3.1 Water
- 3.2 Low-Foaming Non-Ionic Surfactant
- 3.3 Towels
- 3.4 Buckets
- 3.5 Absorbent pads
- 3.6 Metronome



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**4.0 Client Provided Surfaces:**

4.1 **Shower Pan** – 5 samples were received. Sample #1 and #2 measures approximately 24" x 36" and are flat. Sample # 3 measures approximately 21" X 36" and has a slight curve. Sample #4 and #5 measures approximately 24" X 36" and have a drain hole that is not fully drilled through. All have similar textures and are off-white in appearance. Each sample is marked on the back side accordingly.



**Sample 1 (#7507)**



**Sample 2 (#5180)**



**Sample 3 (#7530)**



**Sample 4 (#6728)**



**Sample 5 (#5760)**



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**5.0 Test Parameters:**

Testing began on **Thursday July 17, 2025**, at **8:00 AM** and ended on **Thursday July 21, 2025**, at **3:30 PM**

Two bare-foot test persons are used to determine the angle of slip, while the pedestrian surface material being tested is continuously coated with water containing a wetting agent. The test persons, each in turn, facing down the ramp and with an upright posture, move forwards and backwards over the test surface, as they increase their angle of inclination, until the safe limit of walking is reached, and a slip occurs. The mean angle of the slip obtained is used to express the degree of slip resistance. Subjective influences on the angle of slip are limited by means of a correction procedure.



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**6.0 Results:**

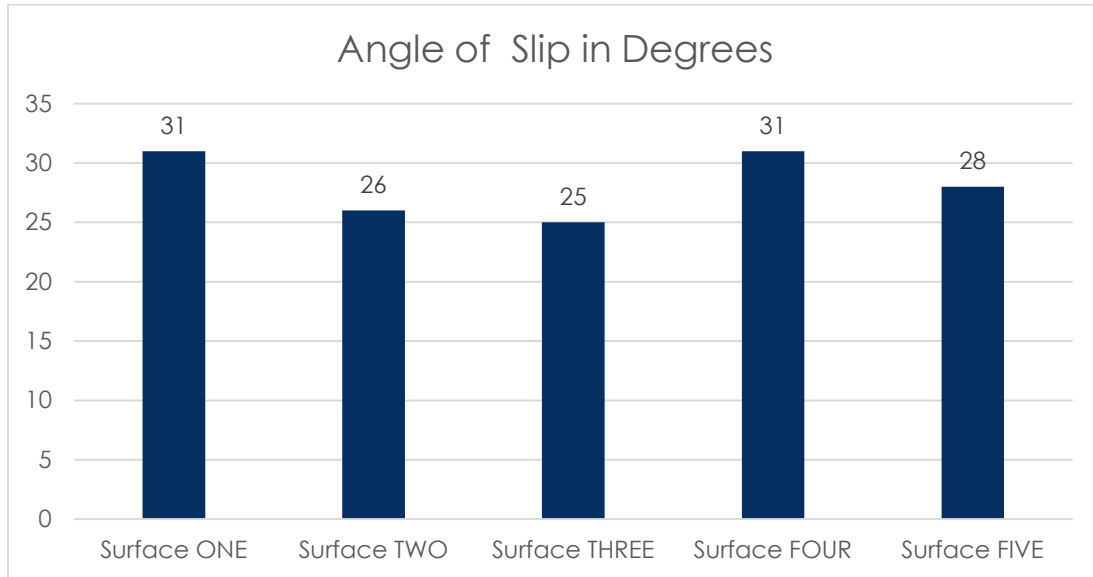


Table for Slip Resistance Classification of surfaces from DIN EN 16165:2023-02:

**Table NB.1 — Assignment of the test result  $\alpha_{barefoot}$  (A.6) to the classes of slip resistance**

Test result $\alpha_{barefoot}$ (A.6)	Slip resistance class
$12^\circ \leq \alpha_{barefoot} < 18^\circ$	A
$18^\circ \leq \alpha_{barefoot} < 24^\circ$	B
$24^\circ \leq \alpha_{barefoot}$	C

Based on the test results, the tested surfaces all classify as Slip Resistance **Class C**.

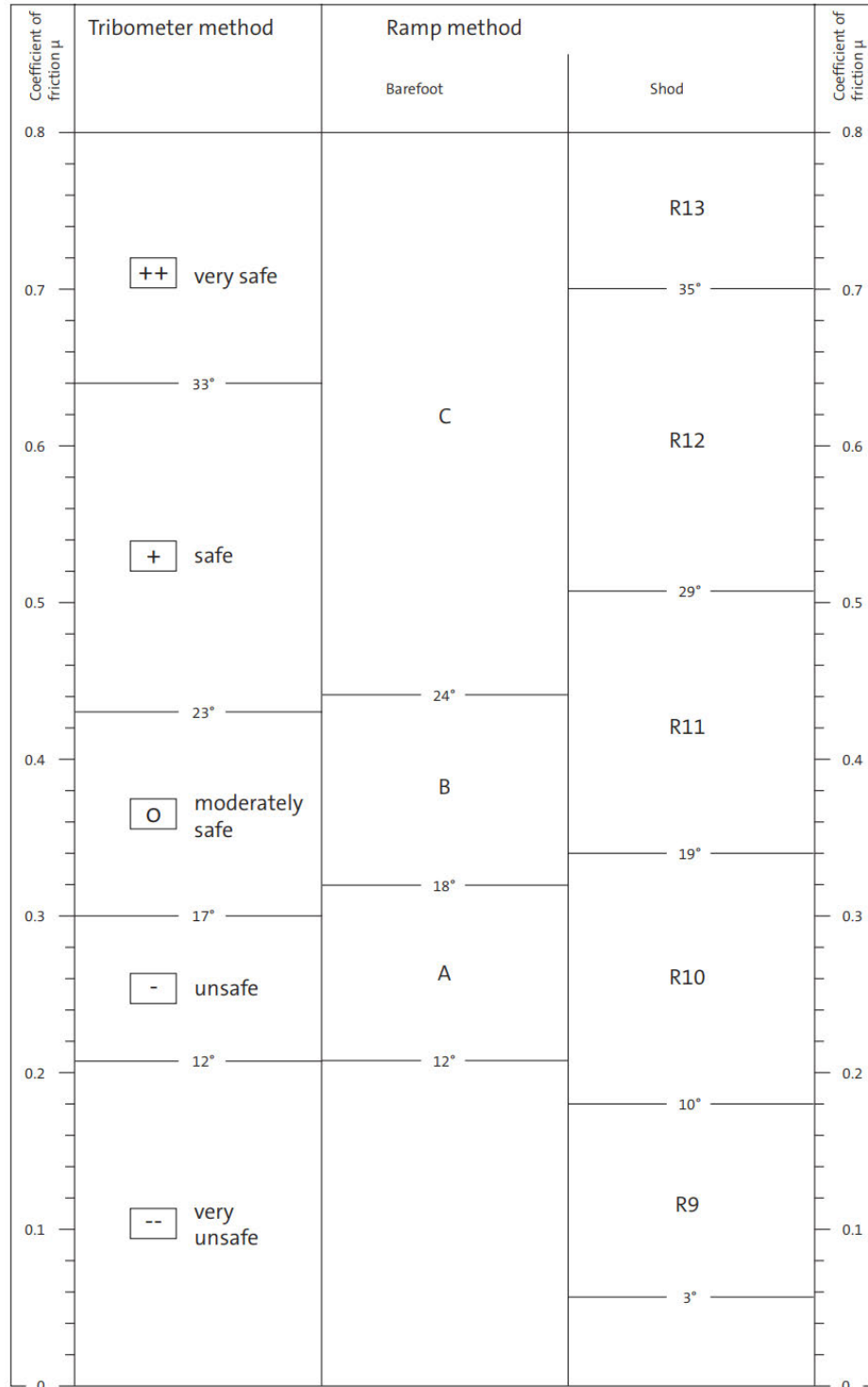
The below table depicts the comparison of the different slip resistance testing methods and their relationship to each other. For example, class B slip resistance is correlated to the Tribometer method results of “moderately safe” and “safe” (with the appropriate Coefficient of Friction values).



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**Table 2 - Comparison between  $\mu$  and R and ABC values**





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**Laboratory Manager: (Report Author)**

**July 22, 2025**

**Issue Date:**

**Approved by:**

**General Manager**

**Approver's Title:**