External Slip Advice

Pendulum Test - Slider 96

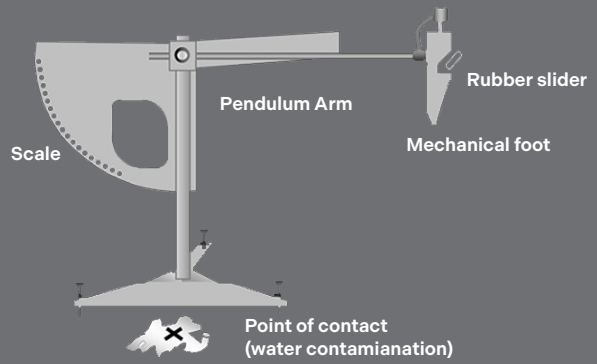
These notes should be read in conjunction with British Standards BS5385-3 2024

Where it is known that slippery conditions might arise in service and present a significant hazard, tiles with slip resistant finishes suitable for the conditions and location should be used. Flooring materials should not be highly slippery when used in locations that suffer occasional wetting, which increases surface slipperiness, i.e. shopping malls or office receptions. Additional entrance matting should be installed and/or a management regime put in place to deal with such situations.

There are two standard sliders used with the pendulum equipment:
a) Slider 96 – provides slip potential readings for shod-foot pedestrians; and
b) Slider 55 – provides slip potential readings for barefoot pedestrians.

External situations have extra risk of different types of contaminants likely to be present on the floor. Cleaning procedures should be carried out regularly.

Grestec recommendations for a Low slip potential for external situations:
≥ 45 PTV for wet results using the above correct pendulum slider.



For further information or advice please contact 0345 130 2241 or email technical@grestec.co.uk.

Grond One KAAA49400THK ≥42 PTV

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A higher level of slip resistance is required on a sloping surface than on the level to achieve the same degree of safety and to maintain the same degree of traction. The additional slip resistance can be approximated for the gradients recommended for ramps by expressing the gradient as a percentage and adding this to the PTV for an equivalent level surface, e.g. for a 1:20 slope, the gradient is 5% and the required PTV is increased by 5. For a 1:12 slope, the gradient is 8.3% and the PTV needs to be increased by 8.3.

Where weather or low temperature results in surfaces being covered in snow or ice, the slip resistance of a surface ceases to be effective; therefore, external ramp surfaces need to be kept free of snow or ice as part of the management regime of the external space.

The United Kingdom Slip Resistance Group (UKSRG) and the Health & Safety Executive (HSE) currently recommend two types of instrumentation to assess the slip resistance of flooring materials, the pendulum, which measures slip resistance and an appropriate roughness meter, which measure roughness parameters (Rz).

Further related reference and reading:

BS EN 1338: 2003 – Concrete paving blocks — Requirements and test methods
This standard states that concrete products will provide satisfactory slip resistance throughout the life of the product unless a major proportion of the aggregate, which will polish easily, has been exposed on the surface. However, if slip resistance is required then it contains an annex which describes using a pendulum with a slider 55 in the wet after the sample has been soaked for a set period. The test is carried out in two directions at 180° to each other.

BS EN 1339: 2003 – Concrete paving flags — Requirements and test methods
The standard for concrete slabs follows the same format as BS EN 1338 for concrete paving blocks with the additional information:

Pendulum Value (PTV)	Potential for slip
<19	High slip potential
20 to 39	Moderate slip potential
40 to 74	Low slip potential
>75	Extremely low

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