



Don't Slip Up Maintaining or Laying New Floors.

Every business, supply company and specifier should understand floor slip risks and how it could affect them. Testing for slip risk has benefits for your business and your clients. Don't risk letting slippery floors trip up your business.

Slip risks can catch you out.

Slip risks can catch out contractors, flooring companies, designers etc, not just now but in the future. A construction company got a wakeup call when the owners of an indoor car park they built 3 years earlier complained because they had a slippery floor. With no record of the slip resistance certification when the building was handed over, the construction company hadn't a "leg to stand on".

Protect yourself from blame and litigation.

You may think you are not responsible, especially if you sub-contract the work, purchase flooring materials as specified by an architect or your client. Whatever your involvement whether it be a new or an existing floor, you need protection. When slipping problems arise, maybe months or years after the floor is laid, everyone blames someone else. The architect, designer, main contractor, flooring contractor, the building owners, the maintenance company or the cleaners could be at fault. When everyone else is looking for someone to blame, and litigation is in the air, you need to be protected. The best protection you should have is to make sure every new and existing floors are tested for slip risk. Slip test results should be recorded, maintained with the Safety File and should be provided to the client at handover. Advise the building owner to re-check the floor periodically and also after any change to the floor surface. Let that be from a change in cleaning operations, repairs or the application of a polish, an anti slip additive or any other surface coating.

Cleaning & Flooring Contractors, Are you taking on somebody else's problem?

Contractors taking over the maintenance of existing floors, have you assessed the slip risk of the floors before you assume the responsibility for them? Floors

maintained prior to your contract may not be in an acceptable condition in terms of slip risk. Slip testing can protect your company. Assess the risk – set a benchmark!

The bigger the floor, the greater the risk – do not build a headache.

The bigger the job, the greater the risk; ensure you test properly. If you are involved with flooring in factories, shopping malls, airports, schools or hospitals, check the slip risk across the whole area of floor. Whatever the material you should test it. Nobody wants 1,000 sq metres of expensive slippery floor.

Most commercial floors are designed to last for 25 years or more. Nobody wants 25 years of slip headaches. Don't leave it to chance that one of your floors will cause future problems. Test carefully with a British Standard slip test.

All floors should be fit for purpose.

Floors that are normally dry should be tested for wet slip risk in case there is a spill or other water ingress. Work with your client and the design team to ensure there is an appropriate specification for wet slip risk; ensure new floors or areas repaired meet the required specification. Slips are one of the biggest causes of major injuries because many floors are not fit for purpose. Don't wait for the fall. Include floor testing as part of your QA or risk assessment. The HSA (Health & Safety Authority) requires that companies should "Include slips, trips and falls in your safety statement conduct audits as required by the HSA to ensure responsibilities are met".

Slip Testing Methods:

THE SLIPALERT (TROLLEY UNIT), AS OUTLINED IN BS 8204-6 AND THE PENDULUM UNIT AS OUTLINED IN BS7976 ARE THE ONLY TWO UNITS THAT CONFORM TO BS STANDARDS FOR CARRYING OUT FIELD SLIP RESISTANCETESTING IN BOTH WET AND DRY CONDITIONS – The BS Standard is widely recognised through Europe.

Other Test Units:

Drag Testers which are widely used are designed to measure the static (not dynamic) coefficient of friction (SCOF) and are therefore excluded by ASTM (American Society for Testing Materials) B2047-4; therefore it is not an appropriate instrument for friction measurements in litigation cases. The SlipAlert (Trolley Unit) has the ability to measure sloping surfaces more easily than the Pendulum unit.

Ease of use:

The Pendulum Unit was designed and introduced in the 1930s in America, also known as the British Pendulum or TRL Pendulum because it was adopted by the British Transport Research Laboratory as a skid tester. It was the preferred method of Slip Resistance Testing as it was the only device included in British Standards to re-create the squeeze film effect required to measure wet slip risk. This was the situation until the SlipAlert (Trolley Unit) was introduced in 2010, approved by BS8204. The Pendulum Unit is mechanical and requires an expert to set it up to operate it, whereas the Trolley Unit does not require an expert and can produce results in minutes. This makes risk assessment of floors available, will help in setting a benchmark and help to ensure that the correct floor is laid for purpose. It will monitor to ensure the surface is not altered through wear, repairs or the application of coatings, polishes etc. If anti slip treatments are applied ensure retesting is completed from time to time.

Suggested Slip Resistance Values:

The unit of measurement of Slip Resistance is Pendulum Test Value or PTV. This is a scale of the values of Slip Resistance based on the Coefficient of Friction (CoF). The HSE U.K. (Health & Safety Executive) adjusted the level of acceptance is to PTV 36 (Pendulum Test Value) to allow for variations between the slip resistance as measured by soft and hard rubber sliders. Values over a PTV 40 are considered to be less than 1 in 1 Million risk that a pedestrian will need to modify walking gait. Generally a PTV of 36 or above (CoF 0.36) is considered safe for a non sloping surface. A TRL Slider (55#61) is required when measuring in bare feet, pedestrian soft shoes (e.g. trainers) and tyred vehicles. A 4S/96 Slider is required for normal shoed pedestrian use.

The UKSRG (United Kingdom Slip Resistance Group) and the HSE provide general guidance on the significance of slip resistance values in relation to users' perception of the slippiness of a floor. FeFRA (The Resin Flooring Association) also suggests the same slip resistance.

The Health & Safety Authority in Ireland also follow the above guidelines.

THE PTV VALUE POTENTIAL FOR SLIP IS AS FOLLOWS.

0 – 24	HIGH RISK
25 – 35	MODERATE
36 +	LOW RISK

Every floor should be safe in normal use. Swimming pools or other wet floors should have a minimum of PTV 36 (Pendulum Test Value) or a minimum of STV 136 (Slip Test Value) when wet.

The Ramp test is strictly a laboratory method and cannot be related to site measurements. There is very little correlation between the Ramp 'R' numbers and the slip resistance value generated by either the Pendulum or SlipAlert.

HSA Slipping Statistics:

- Slips and Trips were the major cause (44%) of workplace accidents reviewed by the Personal Injuries Assessment Board (2009).
- Slips and trips account for 21% of all notified 4+ lost day injuries (2010).
- 25% of injured people were unable to work for over a month (2010).

Management should:

- Conduct workplace specific slips, trips and falls risk assessment.
- Include slips, trips and falls in the safety statement.
- Conduct audits as required to ensure responsibilities are met.

In Summary:

To ensure you get a floor that will stay safe throughout its life:

- Specify the minimum level of slip resistance for safe use and ensure all new floors achieve this **Benchmark** value for wet and dry slip risk.
- Ensure that the maintenance and cleaning staff are aware how to maintain and clean to ensure the required level of slip resistance.
- Re-test the slip risk whenever there is a change in the cleaning routine or to the floor surface.
- Maintain records to ensure standards have not dropped from the **Benchmark**

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