



The UK's independent authority on slip resistance

Reducing slips – The importance of effective cleaning and maintenance of floors.

A guide to effective cleaning to help reduce the risk of slipping

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Introduction

- » Slip accidents can be serious and costly for building owners, managers and for the person who slips.
- Solutions are often simple. Implementing an effective cleaning and maintenance programme can help reduce the risk of slips on floors.
- Even slip-resistant floors can become slippery if they aren't cleaned effectively.
- Cleaning is carried out on all floors already; doing so more effectively can reduce the risk of slips.

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» People rarely slip on clean, dry floors.





Did you know?

- Slips and trips are the most common cause of injury at work.
- » 30% of non-fatal injuries to employees (as reported by employers), are related to slips, trips or falls on the same level (RIDDOR 2021/22).
- » Most slips occur when floors become wet or contaminated.
- It is, though, possible for a floor to be safe when wet or contaminated.



More information can be found at

www.hse.gov.uk/statistics/causinj/index.htm





HSE Publications and Guidance

Workplace (Health, Safety and Welfare) Regulations 1992

Approved Code of Practice (ACOP) and Guidance (2nd edition published 2013) – contains:

- The Regulations.
- The approved code of practice (ACOP) which provides practical advice on how to comply with the regulations.
- Following the guidance issued by HSE will normally be enough to comply with the regulations.



Health and Safety

Workplace health, safety and welfare

Workplace (Health, Safety and Welfare) Regulations 1992

Approved Code of Practice and guidance



The Workplace (Health, Safety and Welfare) Regulations 1992 cover a wide range of basic health, safety and welfare issues and apply to most workplaces (except those involving construction work on construction sites, those in or on a ship, or

This revised and updated version takes account of changes to legislation since the previous edition was published, including:

- Quarries Miscellaneous Health and Safety Provisions Regulations 1995
- Quarries Regulations 1999:
- Work at Height Regulations 2005;
- Construction (Design and Management) Regulations 2007;
- Health and Safety (Miscellaneous Repeals, Revocations and Amendments)

https://www.hse.gov.uk/pubns/ priced/I24.pdf



What does the law say?

Workplace (Health, Safety and Welfare) Regulations 1992 – the legal requirements

Regulation 9 – Cleanliness and waste materials

(1) "Every workplace and the furniture, furnishings and fittings therein shall be kept sufficiently clean."

Regulation 12 – Condition of floors and traffic routes

(3) "So far as is reasonably practicable, every floor in a workplace and the surface of every traffic route in a workplace shall be kept free from obstructions and from any article or substance which may cause a person to slip, trip or fall."





Approved Code Of Practice (ACOP) – Key Points

Regulation 9 states

- » Ref: 90 "Sufficiently clean means that workplaces should be regularly cleaned to ensure that dirt or refuse is not allowed to accumulate, and spillages and deposits are removed or cleaned up as soon as possible. The frequency of this activity and standard of cleanliness will depend on the nature of the business."
- REF: 92 "Cleaning should be carried out by an effective and suitable method and without creating, or exposing anyone to, a health or safety risk."



ACOP and HSE Guidance – Key Points

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ACOP Regulation 12 states – Ref: 113

"Where a leak, spillage or other type of contamination occurs and is likely to be a slipping hazard, take immediate steps to fence it off, clean it up, or cover it with something to stop it being slippery (e.g. absorbent granules)."

HSE guidance on Regulation 12 states – Ref: 123

"To prevent slips and trips, includes the following statements that relate to cleaning:

- » have effective arrangements for both routine cleaning and dealing with spills
- remove spillages promptly
- » leave smooth floors dry after cleaning or exclude pedestrians until the floor is dry
- w use the right cleaning methods for your floor"





So how do slips happen?

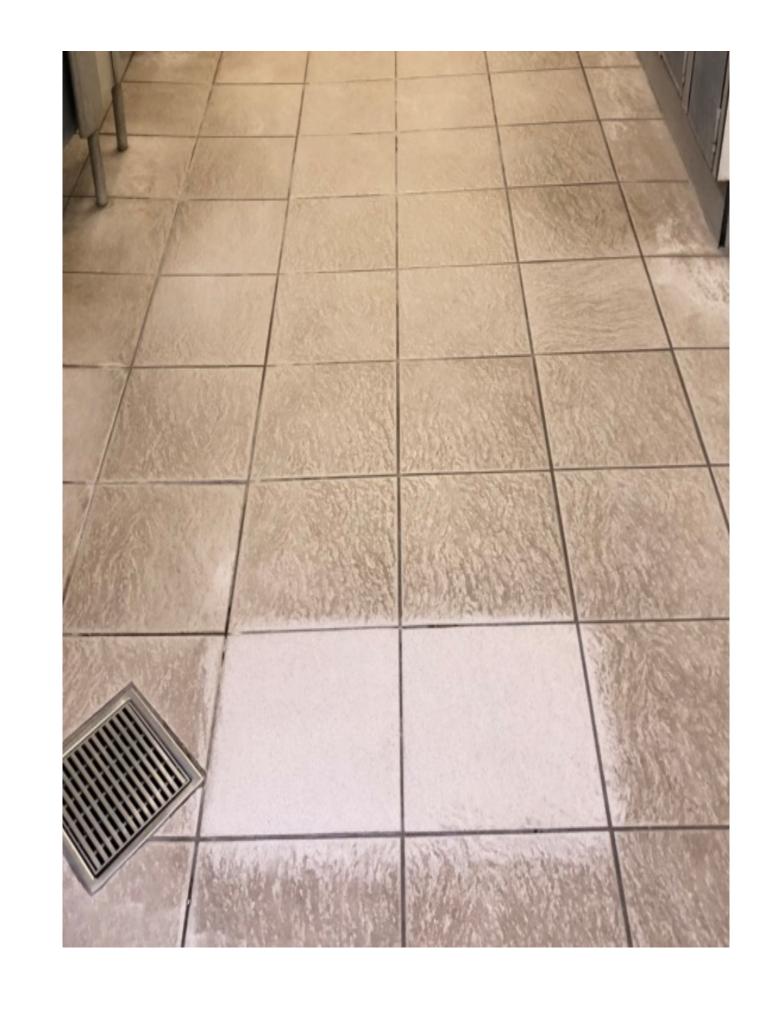
- Almost all slips happen when floors are wet or otherwise contaminated.
- Contaminants include: water, oil, food debris, dust.
- » Small amounts of contamination, even the thin film of water left after mopping with a wrung mop, can present a significant slip risk on smooth floors.
- Even slip-resistant floors can become slippery if not cleaned effectively.
- » A floor can look clean but may not be clean.





How does cleaning affect slips?

- When cleaning is carried out effectively, it can make the difference between a floor having a high slip potential or a low slip potential.
- » All floors require cleaning to maintain their performance characteristics, including slip resistance.
- » The cleaning process may introduce slip (and/or trip) hazards.
- Cleaning can be the difference between slip resistant floors remaining safe as intended, or becoming slippery.
- Cleaning is required for all floors; cleaning more effectively can be a simple change that can make a difference to the risk of slipping.



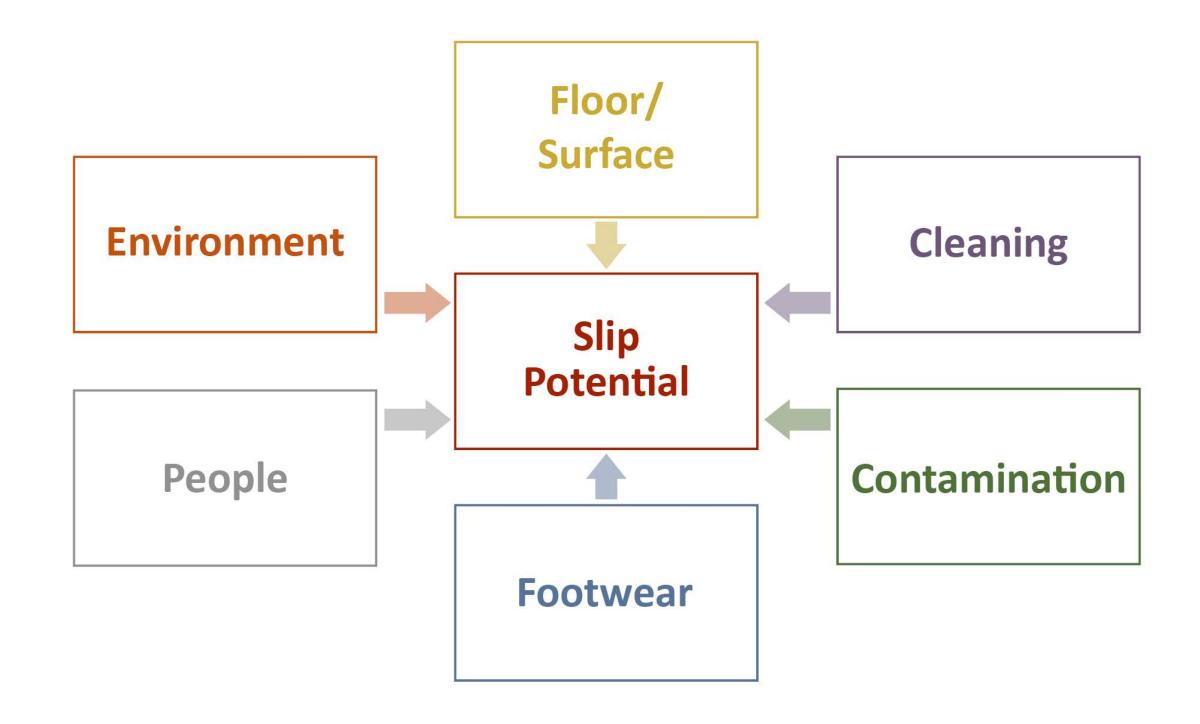


Risk Assessment

- The slip potential model identifies factors which can contribute to a slip accident.
- » A risk assessment should identify hazards and suitable and sufficient control measures.
- It is a legal requirement to regularly carry out a risk assessment of every work place including the risk of slipping.
- » HSE guidance on risk management can be found here:

https://www.hse.gov.uk/simple-health-safety/risk/index.htm

Slip Potential Model



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Cleaning is a factor that should be controlled.

- Experience has shown that cleaning regimes can be ineffective.
- Well planned and executed cleaning regimes can reduce the likelihood of slipping and will also have a positive effect on flooring appearance and hygiene.
- » However, the cleaning process can introduce new risks if poorly planned or implemented.

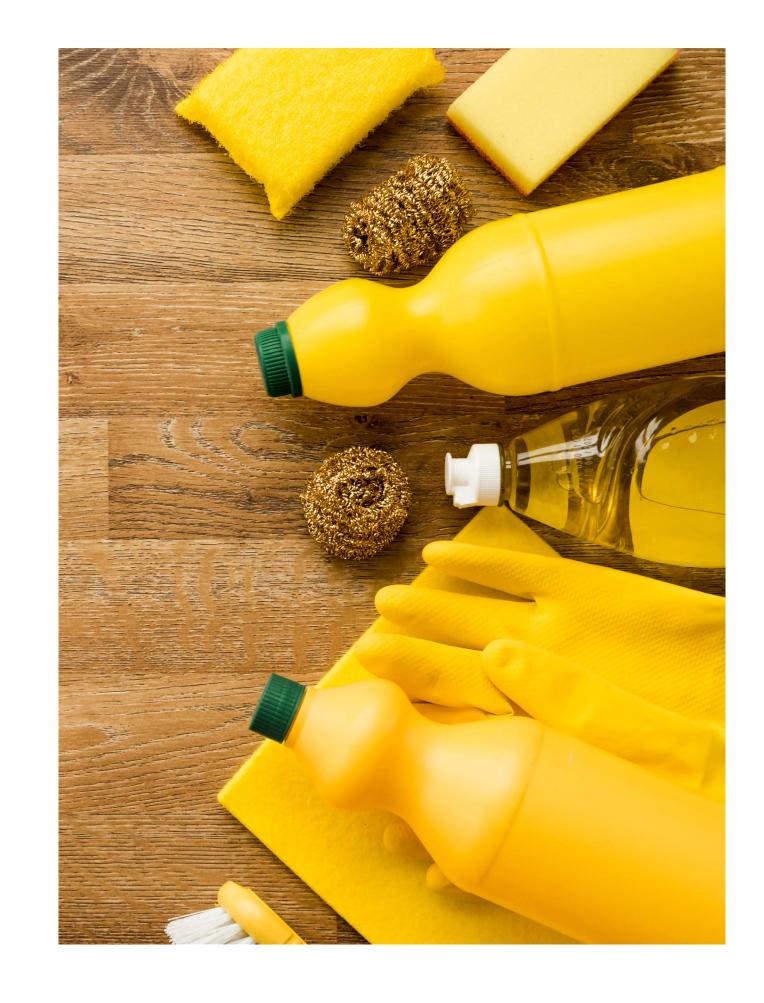
Cleaning can make a difference – it must be done, so why not do it properly? Cleaning can be a key and cost effective control option.





Summary of key cleaning considerations

- Different floor types and different areas of buildings will require different cleaning techniques.
- Begin by consulting both flooring manufacturer and cleaning equipment supplier to select the appropriate cleaning process.
- Take operational factors into account.
- Consider the type and amount of contamination present
- Remember some contamination may not be visible, but can still affect slip resistance.
- In some cases a floor may look clean but still be slippery.





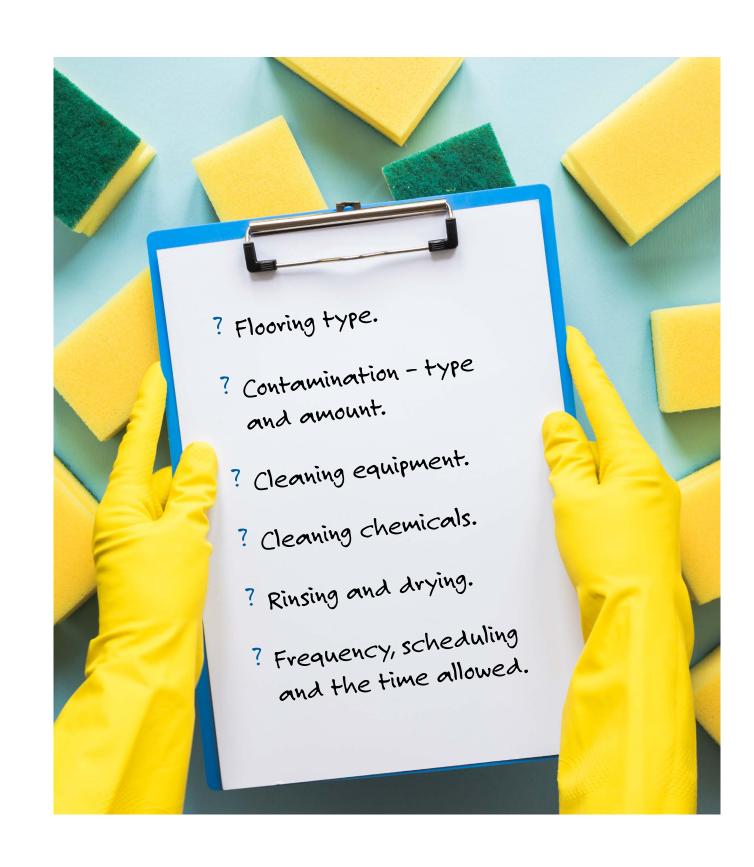


Effective cleaning and maintenance programme – Things to consider

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The most appropriate process will depend on:

- » Flooring type.
- Contamination type and amount.
- » Cleaning equipment.
- » Cleaning chemicals.
- » Rinsing and drying.
- » Frequency, scheduling and the time allowed.

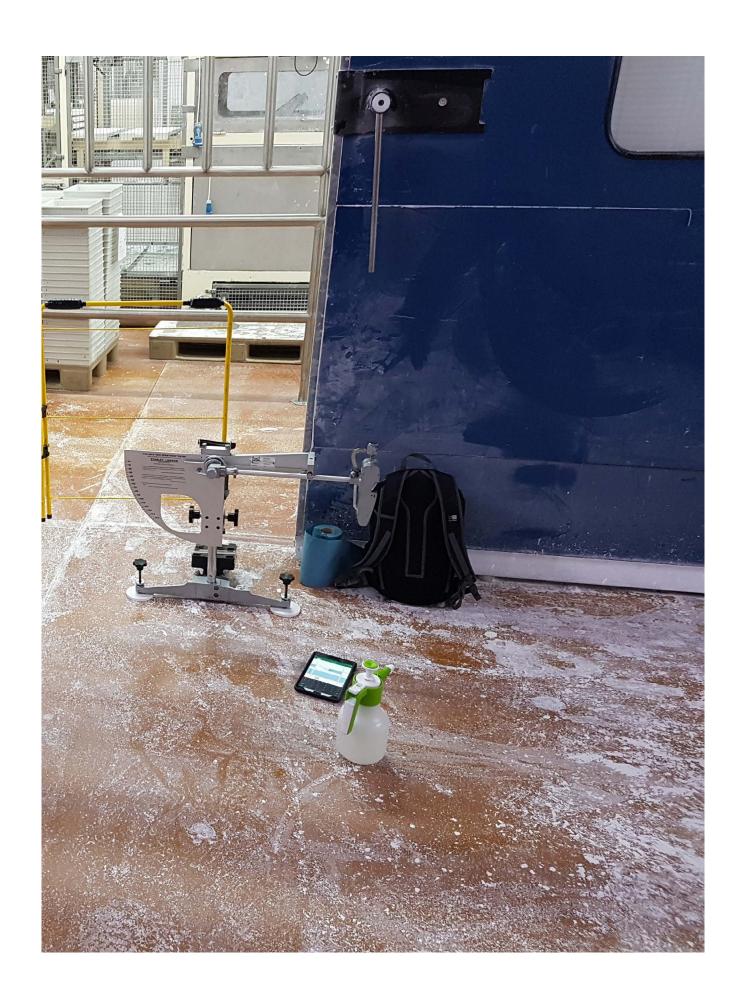




Dry areas – Key cleaning considerations

- Ensure your risk assessment of what constitutes a dry floor is robust.
- » Keep these (typically smooth) floors dry.
- » Include measures to deal quickly and effectively with spillages.
- Ensure that cleaning doesn't leave any residue on the surface, which could compromise the slip resistance.
- Ensure floors are properly rinsed and dried before pedestrians are allowed to return.

- » Clean in sections maintaining a dry route through.
- » Clean at quiet times.





Wet (or otherwise contaminated) areas – Key cleaning considerations

- In areas where floors are routinely wet or contaminated, floors should have slip resistance appropriate for the type and level of contamination expected.
- Monitoring using the pendulum test will inform on the slip resistance of floors.
- » Any floor can become slippery if contamination is allowed to build up.
- Correct management of these surfaces, including effective cleaning, will reduce risk.

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Contamination may be transferred to adjacent areas, which may create a slip risk.





Planning and Implementation

A well-planned cleaning regime should:

- Consider whether the floor is dry or routinely wet / contaminated.
- Consider contaminants including, water, other liquids, dust, oil, grease, along with any associated hazards.
- » Have effective arrangements for both routine and periodic / deep cleaning.



- Have procedures in place to remove spillages promptly and effectively.
- Leave floors dry after cleaning or exclude pedestrians until the floor is dry.
- Empower and engage with cleaning operatives to fully understand and deliver the plan.





Operational Considerations

- Clean at quiet times.
- Exclude pedestrians when the floor is wet.
- Leave a dry route clean in sections where necessary to maintain access.
- » Plan routine cleaning of floors to avoid the build-up of contamination.
- Allow sufficient time to clean effectively e.g. allow sufficient contact time for chemicals to enable them to work.







Review the efficacy of your cleaning regime

- Periodically audit the cleaning process. Is it still effective and fit for purpose? Keep records.
- Points to consider:
 - Does the floor look clean?
 - Have there been any near misses? Has anyone complained about floors being slippery?
 - Has the use of the floor changed?
 - Has the nature of the contamination changed?
 - Has the floor's inherent slip resistance changed e.g. through wear?
- A pendulum test can help identify any changes in the slip resistance of the floor over time that might be due to ineffective cleaning.
- Check what is said in the manual and what happens on the floor are consistent.

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Ensure good records of cleaning practices are kept.





Spills Management

- Spills management is about making the area safe by removing the contamination.
- » Develop and implement a spills management procedure.
- » Deal with spills quickly, appropriately, and effectively.
- » Avoid spreading local spills.
- The floor should be left dry after a spillage has been removed.
- Continually review the procedure to ensure that it remains effective.





Summary

- » Management of slip risk is a legal obligation.
- » Just because a floor looks clean doesn't mean it is clean.
- » Almost all slips happen when floors are contaminated or ineffectively cleaned.
- » Investment in cleaning can pay dividends.
- » Do not assume that all floors are cleaned in the same way.
- » Effective cleaning is a continuous process.
- » Monitor, review, update and implement the process.





Bibliography & Further Reading

HSE – The Importance of floor cleaning

http://www.hse.gov.uk/pubns/web/slips02.pdf

HSE Slips trips and falls homepage

https://www.hse.gov.uk/slips/index.htm

CIRIA safer surfaces to walk on

https://www.ciria.org/



Several product standards include advice on aspects of cleaning.





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