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# **Case Study**

Leisure centre floor anti-slip treatment

Client	Confidential
Sector	Leisure and Fitness
Location	South East

### Background

A leading national leisure and fitness company, with centres across the UK, called in SafeGroup after one of its employees suffered a serious fall at poolside. The company recognised the wet area floors may be in urgent need of deep cleaning and anti-slip treatment to reduce the slip risks.

## The Challenge

Floors in swimming pools and spas, and associated changing rooms, are at particular risk of causing slips and falls, despite measures taken to mitigate hazards.

Body fats from guests combine with grime and other substances, like soaps, shampoos and topical creams, and build up on tiled floors. Added to this are calcium deposits, precipitated from water.

If left unchecked, these deposits form a layer that is highly-slippery and also resistant to routine cleaning procedures. This layer counteracts anti-slip features designed into the tiles, usually in the form of micro-dimples across their surface.

The result, over time, is the creation of a perfect environment for slips and trips to occur. A super-slippery unhygienic coating of grime and body fat, compromised designed-in non-slip capability, and the presence of standing water combine to greatly increase slip risks.

In addition, the slippiness is so great and the environment so challenging, with hard floors and hard-edged furniture and fixtures, that the risk of serious injury as a result of those slips can also be greatly increased.

#### **The Solution**

SafeGroup is the exclusive mainland UK contractor for the application of Bonasystems floor deep cleaning products, floor sealing products, and slip resistance coatings.

We visited the fitness centre to carry out slip risk assessments using the pendulum test. This is a test also used by the Health and Safety Executive (HSE), as part of its regulatory activity, to assess the slip resistance of floors.

The test measures a floor's dynamic coefficient of friction by swinging a pendulum arm onto the floor to mimic. This results in slip resistance scores called Pendulum Test Values (PTVs).

PTVs of 0-24 show the floor has a high slip potential. Scores of 25-35 is a moderate slip potential and a score of 36 and over shows the floor has a low slip potential.

**Pictured below:** a pendulum test being carried out at the leisure centre.

### Slip risk assessment results

Of the seven locations tested on this site, five recorded high slip risk potentials. Two others had moderate scores, but on the threshold with the high score range. The area where the fall occurred had a PTV of 17. This meant the floor had a probability of causing an accident, based on HSE research into PTVs and accident rates, of 1 in 2.

## Deep cleaning and non-slip coating

Less than four weeks later, a SafeGroup floor deep cleaning and treatment team attended the fitness and leisure centre to remedy the problems identified by the slip risk assessments.

Working over three nights, when the centre was closed so no customers were inconvenienced, floors at poolside and in the sauna area were deep cleaned.

The cleaning products used are specially formulated to remove body fats, grime and calcium stains that build up on the floors, leaving them looking as clean and bright as when they were laid, and restoring designed-in slip resistance.

Then the floors were treated with Bonasystems Grip, a coating that enhances slip resistance further still.

#### Outcomes

- Following deep cleaning and the application of the slip resistance coating, nine representative locations were pendulum tested again.
- All locations recorded scores exceeding a PTV of 47, indicating that they all now had low slip risk potential.
- The PTV in the area where the fall occurred was 53.
- This indicated a low slip risk potential well below the minimum level of 36 to achieve a 'low' designation in line with the HSE's scoring system.
- It also means that, according to the HSE's own research, a person walking across the floor was 500,000 times less likely to suffer a fall after it was treated by SafeGroup.
- The floor looked cleaner, brighter, more hygienic and attractive in line with the client's brand promise.

SafeGroup has recommended that regular slip resistance assessments be carried out at least every year and preferably every six months as part of planned preventative maintenance. RIDDOR reported 20,333 slip / trips / falls per year alone







by volume and value of personal injury claims

33%







**£10m** 

potential size of fines with changes to HSE sentencing guidelines

# SafeGroup comment

**56** This project demonstrates the clear safety and reputational benefits of maintaining floor slip resistance at a high level. Slip risks in leisure environments, and wet areas in particular, need to be closely monitored and timely action taken.

Maintenance of newly-cleaned and treated floors must also follow the correct procedures. Failure to do so, for example by not using recommended cleaning products, can result in slip resistance deteriorating more quickly than expected, increasing the risk of falls to unacceptable levels.

Mike Drake | Managing Director, SafeGroup

