

# First floor

Want to reduce the risk of injuries and accidents due to slips and trips in the workplace? Steed Webzell finds that resin floorings are offering increasingly popular solutions

Although the number of major injuries to employees as a result of slips and trips decreased slightly between 2006 and 2007, from 10,955 to 10,790, they remain the most prevalent cause, accounting for 38% of the total. More disturbing is the HSE's Fit3 (fit for work, fit for life, fit for the future) employer survey 2006, which found 83% of respondents accepting that their workers could be at risk due to slips and trips.

Key to solving this is choosing the right flooring, whether for process plants, factories, gangways or high-level walkways. Sadly, for many, the selection process appears daunting, so decisions are frequently made based only on the type of flooring used before, or simply on cost. This despite the fact that a damaged floor, resulting from inadequate specification, not only reduces efficiency, but can be a prime cause of injuries, as well as unpleasant or unhygienic working conditions. And, for that matter, that reinstalling floors is expensive, in terms of disruption, inconvenience and loss of production.

A significant quantity of commercial floor space today is being covered in seamless resin flooring, using either polyurethane or epoxy formulations.

## Know where you stand

Reducing slips and trips is one good reason for carefully considered floor selection and maintenance, but comfort is another. Standing for long periods, particularly on hard floors, reduces concentration and productivity. It can also be the cause of progressive bone damage, varicose veins, poor circulation, water retention and back problems.

Zed Chex, from Plastic Extruders, is a range of matting designed to relieve such problems. The base of its multi-purpose mat is constructed using high molecular density foam that induces muscle flexing and reduces fatigue. Its resilience means that it isn't prone to deadening with use.

Recent installations include automotive plants where long lengths have been laid in production areas to reduce fatigue and improve the wellbeing of car workers over long shifts.

This trend is particularly visible in sectors such as food and pharmaceutical, where cleanliness and hygiene are crucial, but also in a growing number of automotive plants and aerospace halls – largely because they also provide a chemical resistant, dust-free and anti-static floor finish.

What we need is help with selection criteria and FeRFA, the Resin Flooring Association, is useful here. In particular, the organisation offers a clear and simple guide (based on BS8204 Part 6) to the types of resin flooring available – ranging from 0.15mm

thick floor seal coatings for light duty, through to very heavy duty (6mm) resin screed flooring – and maps those to their areas of ideal use.

Key aspects to consider, according to FeRFA, include the type of traffic, how long the floor is required to perform, any stain resistance requirements, ease of cleaning and slip resistance – particularly in areas where, for example, foot traffic may bring in water or the manufacturing environment could raise the risk of slip hazards.

Of course, all of this is useful information, if you haven't yet laid your floor, but of little help, if you have an existing resin floor exhibiting signs of deterioration. In such cases, localised damage should be repaired at the earliest possible opportunity, not only to mitigate risk of slips and trips, but to prevent liquids penetrating the bond and causing extensive and costly lateral failures.

For resin floors, suppliers such as Resdev offer patch repairs that include coatings, compounds and fillers. These materials are both easy to use and durable in situ, and the company does offer good guidance around application methods, coverage and quantities. As for cleaning, Resdev says that, under normal circumstances, washing with a compatible detergent solution should be sufficient to maintain safety. However, in hygienic areas, it suggests regular sterilisation with bactericide solutions.

Recent installations include a tough and hygienic floor for a refurbished warehouse and another at Sheffield-based Emergency Power Systems (a standby power equipment manufacturer), which upgraded a concrete floor, using anti-static material for its electronics production areas. **FE**

## Pointers

- Resin floor, ranging from 0.15mm thick floor seal coatings to heavy duty 6mm screed flooring, are available, to BS8204 Part 6
- Resin floors can (and must) be patched, using coatings, compounds and fillers, before deterioration leads to damage to the bond, lateral failures – and slips, trips and injuries
- Where operator fatigue is a problem, high molecular density foam matting is proving invaluable by encouraging muscle flexure

With resin floor systems today, workplace floors can be transformed

