Flooring in Food Preparation Areas – CFJ December 09

Health and safety in the workplace is of paramount importance. In the food industry where spillages and washing down are a regular occurrence, the type of flooring can have a positive contribution to the health & safety regime in terms of hygiene and slip resistance.

Seamless resin floors are an ideal choice for the food preparation areas where they have been successfully used for over 30 years. Any manufacturing environment requires a variety of performance criteria from a flooring system due to the complexity of trafficking and the actual manufacturing processes used. The food environment is, however, the most demanding , where the hygienic properties of the floor are the most important factor, followed by slip resistance and its ability to be cleaned and maintained.

There are three key considerations that will affect the performance of a flooring system in a food preparation environment. The first is to choose the correct type of flooring by ensuring it meets the conditions in the area concerned.

To give good service, any flooring material must satisfy all the mechanical, chemical, physical, biological, and practical requirements of the user:

- Mechanical—to support machinery and to withstand impact and abrasion;
- Chemical— to be resistant to (and protect the substrate from) chemicals to be encountered;
- Physical—to withstand temperature changes (thermal shock) and prevent ingress of contaminants;
- Biological—not to support biological growth
- Practical—to be easy to clean, to be hygienic, to be slip resistant, to be aesthetically pleasing, and to be durable.

Whether the project is new build or refurbishment, pre-planning at the initial design stage is critical to evaluate the environment, the use of the floor and the slip resistance required. To ensure the causes of slips are minimised, the following criteria should be examined

- Type and concentration of likely spillage
- Free draining or flat floor design
- Drainage and sumps to be provided
- Regular cleaning procedures
- Safety footwear

While avoidance of wet contamination is the first approach, there may be occasions when wet or greasy floors cannot be avoided and reliance on adequate slip resistance becomes more important. The floor's slip resistance in such conditions is assessed by established methods of measurement, details of which are included within the FeRFA Guide to Assessing the Slip Resistance of Resin Floors. (available to download from www.ferfa.org.uk)

The BS 8204 series of standards for in situ floorings, including BS 8204-6: Synthetic Resin Floorings, specify that the flooring should give a Pendulum Test Value (PTV) of not less than 40 when tested wet or dry as appropriate for the anticipated service conditions, including any likely surface

contamination. There is a rider that 'in particularly wet areas, the client should be advised of the benefits of the use of special footwear with slip resistant soles, which can allow a smoother floor finish to be adopted. In such situations a PTV of not less than 33 may be acceptable'.

The table below shows the slip resistance values in relation to the risk of slipping.

TRRL Pendulum Value	Potential For Slip
0 – 24	High
25 – 35	Moderate
36+	Low

The second vital consideration is how and when the floor will be cleaned to maintain its characteristics and performance.

If an incorrect cleaning regime is used on contaminated floors, a build up of oils and greases may quickly form, thereby reducing the slip resistance of the floor to an unacceptable level.

The use of mechanical floor cleaning machines with advice from cleaning chemical suppliers should be sought to establish the recommended frequency of cleaning and the most suitable cleaning agents to disperse oils, greases and contaminants and provide the necessary level of hygiene.

Failure to clean floors correctly will affect the slip resistance. It is therefore important to implement an effective cleaning regime in conjunction with the client and this should preferably include regular testing of the slip resistance to ensure that the required performance is being maintained .

The final consideration is of course to choose a trained and competent contractor, such as a FeRFA contractor, who has the specialist skills and experience to advise on the most suitable resin flooring system and to install it correctly.

Footnote

FeRFA endorses and actively promotes "Qualifying the Workforce" through the provision of National Vocational Qualifications (NVQ) for Insitu Resin Flooring and apprenticeship schemes.

For more information on the use of seamless resin floors in the food environment, the following guides are free to download from www.ferfa.org.uk

Assessing the Slip Resistance of Resin Floors

FeRFA Guide to the specification and application of synthetic resin floors

FeRFA Guide to Cleaning Resin Floors