



Sikafloor® in the Food Industry

International Case Studies



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Britvic, Soft Drink Beverage Manufacturer, Rugby, UK

Project

Renovation of an existing floor that had previously been used as a logistics and storage area, was necessary to provide a new production area, due to huge increases in demand for the companies products. Durability, safety and aesthetics were key criteria from the clients project team. An economic solution was also very important of course.

Requirements

On the twenty year old concrete slab the contractor had to provide a heavy duty slip resistant screed laid to falls and capable of installation in only 6 weeks. Bund areas needed construction and then protective coating, to be highly chemical resistant. Significant repairs were also required to the floor slab which had many damaged joint arises / edges.

This newly completed production facility is now used "24/7" as a soft drink bottling plant. It has extended the production area by some 5000 m² and the works were even completed one week faster than programmed.

Sika Solution

The new bund areas were constructed using a **Sikatop®-77** polymer concrete delivered by ready mix truck. Aris repairs were undertaken using **Sikafloor®-30 PurCem®** mortar. The entire floor area was then coated with **Sikafloor®-20 PurCem®** high performance polyurethane, which was applied as a 6 mm screed. The bund walls and all cove details were coated with **Sikafloor®-29 PurCem®** mortar and then sealed with **Sikafloor®-31 PurCem®** top coating. **Icosit® EG 5** was used for line marking and all joints were sealed with **Sikaflex® Pro-3 WF**, polyurethane sealant. The **Sikafloor® PurCem®** systems provide high chemical and temperature resistance, plus excellent mechanical resistance. In the UK food industry it is now the product of choice!



Rosenmühle GmbH, Flour Mill, Ergolding, Germany

Project

The newly constructed state of the art "Rosenmühle" was designed and built to be one of the most modern flour mills in the world. Top quality and exceptional hygiene standards are an established principle and the "norm" in this company.

Requirements

Protective coating of the polymer floor screed with only a short application time. Good temperature resistance as well as mechanical resistance, in combination with crackbridging properties (to avoid any future cracks due to vibrations etc.) was required. Approval for physiological harmlessness, easy cleaning and a seamless finish were also included as basic prerequisites for the floor finish.

Sika Solution

Sikagard®-186, a solvent free, clear epoxy resin was used as the substrate primer followed by the advanced protective coating **Sikafloor®-390**. This modified epoxy system has allowed all of the requirements to be met. It is a coloured, solvent free, flexible epoxy resin with very good chemical and mechanical resistance. Sprinkling with **Sikafloor®-Colourchips** also allowed the creation of individual design throughout the mill.



Jowa Bakery, Ecublens, Switzerland

Project

The Jowa bakery which is owned by Migros, the largest Swiss manufacturing food retailer, was building a new factory in Ecublens. As different Sikafloor systems had been used successfully on previous projects for Jowa bakeries, Sika was naturally involved early in the selection and specification process.

Requirements

Due to the very short available construction period, there was a need to coat concrete which still had a high moisture content. The antistatic floors have been designed as broadcast layers to also fulfill the required skid and slip resistance. For the walls, easy cleaning and of course Food Industry Approval was required.

Sika Solution

Sikafloor®-81 EpoCem®, a 3 component epoxy modified cementitious self smoothing screed, was used as a temporary moisture barrier in the areas with more than 4% moisture. After priming with **Sikafloor®-156**, a conductive, broadcast system consisting of **Sikafloor®-220 W Conductive**, **Sikafloor®-262 AS** and Silicon carbide aggregate was applied. For the walls, **Sikafloor®-261**, a solvent free, coloured epoxy resin coating was used for laminating with glass fibre fabrics and as the final topcoat.



Pearle Bakery, Ireland

Project

A high performance flooring system was needed for a new 2000 m² bakery in Ireland. High volume production of pastry products required a floor with good resistance to all of the daily exposures and impacts of a busy production and baking facility.

Requirements

To provide floors with an excellent appearance and meeting the performance requirements of BS 8204 and FeRFA (The UK Resin Flooring Association), in terms of mechanical resistance, slip resistance and flatness. Areas surrounding the baking ovens would require high temperature resistance, and the surrounding general packaging, handling and processing areas could be covered with a more economic system. Cleanability, hygiene and a high quality working environment were key aspects of the clients' choice of **Sikafloor®**. The client was also aware that floor can be a slip hazard (or even an explosive risk) if the floor system is not correctly designed.

Sika Solution

In the areas surrounding the baking ovens, **Sikafloor® PurCem® 21** was used to achieve a smooth, matt finish, hard wearing, dense polyurethane floor (4-5mm) which provides the high temperature resistance (120°C), very good chemical resistance and due to its smooth nature, easy to clean properties. In the less temperature sensitive areas **Sikafloor®-261** epoxy self smoothing mortar was applied in a multilayer broadcast system to achieve a fine anti slip profile.



Zakłady Miesne "PROSIACZEK", Meat Processing Plant, Kraplewice, Poland

Project

The old process halls were now too small and needed refurbishing to fulfill EEC and USA hygienic standards (HACCP).

The client decided to build a completely new factory following European and American hygienic (HACCP) requirements. The most important surfaces in the new building obviously were the floors and walls.

Requirements

The client need to install floors fulfilling the latest hygienic standards but he had a limited budget. The standards require seamless, durable, protective floors and walls in the areas of the building where meat is processed. These same requirements apply to the cold storage areas and loading platforms. Additionally, a new floor was needed for the existing canteen and staff rooms.

Sika Solution

Due to the limited budget it was decided to divide the floors and walls into different zones dependent on the potential chemical and mechanical exposure. The loading platforms and cold storage areas received surface floor hardeners created with **Sika® Chapdur** dry shake (**Sikafloor®-1 Quartztop**). The canteen and staff rooms were given an elastic solution with **Sikafloor®-300 N**, **Sikafloor®-Colourchips** and **Sikafloor®-302 W** to provide a "comfort" floor. In the production halls it was decided to apply a durable and functional screed using **Sikafloor®-162** with coloured quartz sand. The colour concept for floor zoning was approved by the local authorities. The walls in the high chemical aggression zones were coated with **Icosit® K-24** thick and **Sikafloor®-2530 W** was used in the less aggressive areas.



Aurelio Castro y González S.A., "Iberian" Ham factory, Spain

Project

The company Aurelio Castro y González S.A. is located in Salamanca. Its main activity is the production of "Spanish ham". Several extensions of the facilities have been made over the years (adding drying rooms, cooling rooms, additional lines etc.) now it has a total floor surface area in excess of 11'000 m².

Requirements

The modern requirements for floors and walls in the Food Industry are strictly regulated in the EEC. Sikafloor systems are specifically designed to meet these regulations. These requirements stipulate that:

Floors must be:

- Impermeable
- Non absorbent
- Non skid/slip resistant
- Mechanically resistant
- Chemically resistant to the process and cleaning products

Walls must be:

- Coated with an impervious material
- Thermal shock resistant
- Easy to clean and disinfect
- Smooth surfaces
- Chemically resistant to the process and cleaning products

Sika Solution

The Sika solution was a slip / skid resistant broadcast screed, using **Sikafloor®-261** coloured epoxy mortar. In areas where the existing concrete had a moisture content in excess of 4%, the surfaces were prepared, and then levelled and sealed with **Sikafloor®-81 EpoCem®**, before application of the broadcast **Sikafloor®-261** system.



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