High performance food safe panel solution for leading bakery

by Peter Denford, managing director, Panel Projects Ltd, Avonmouth, Bristol,

oday's hygiene regulations require premises used in food manufacture to meet specific standards in their layout, design, construction and size. In particular, they should permit good hygiene practice, be easy to clean and/or disinfect and should protect food against external sources of contamination, such as pests and bacteria

London-based Millers Bespoke Bakery was founded in 1997 by its present managing director, Marcus Miller, formerly head baker of the Grand Hyatt Hotel, Hong Kong.

The company produces an extensive range of European breads of the highest quality for the country's top chefs and catering establishments.

Custom built bakery

Having outgrown its original premises in Battersea, the wholesale business moved to its present location in south Wimbledon in 2008, occupying a 1,860m² custom built bakery, which is in operation 24 hours a day and where some 80 people are employed.

Food preparation and storage areas within the bakery have had to be designed and built from scratch and it was in sourcing materials with impeccable hygiene creden-

The mixing and weighing area.

tials that a relationship was established with Panel Projects, part of the Gilcrest Group, based at Avonmouth, near Bristol.

Since 2002, Panel Projects has been supplying high performance composite panelling for managed environments, such as cleanrooms, data suites and cold rooms, as well as for wider applications in airports, reception areas, lifts and even ships. Users value the fact that the panel systems can be supplied customised to precise sizes within short lead times — often as little as two weeks — and with all the fixings and instructions needed for easy assembly. The panels

themselves are guaranteed to be of a consistently high quality as part of the company's ISO 9001:2008 accreditation by the Loss Prevention Certification Board.

Suite of rooms

For the past two years, Panel Projects has been supplying Millers with panel systems for a suite of production rooms in its newly constructed Wimbledon bakery, including areas used for mixing raw materials (both by hand and by machine) and proving the dough. In most cases, the panels are fixed to existing walls, but in some locations are used as freestanding partitions.

The total supplied amounts to some 190m² and further areas in the bakery are in the pipeline for similar treatment.

In each case the panels are supplied according to drawings provided by the bakery. They are precisely customised to the required dimensions and delivered complete with floor channelling, fittings and assembly instructions. Most were 4000mm long, I 160mm wide and 100mm thick.

All the panels supplied so far contain a low density PIR (polyisocyanurate) foam core, which delivers high levels of fire resistance, strength, thermal efficiency and hygiene control. They virtually eliminate the risk of mould and bacterial growth thanks to an ability to repel water and vapour and are

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The bakery's main oven area. Panelling has been used to create the ceiling and the free standing, right hand wall.



The mixing and weighing area. This shows the panelling used to create the ceiling and walls.





The moulding area. This shows panelling used to create the ceiling and free standing walls.



The despatch area. Panelling has been used to clad an existing wall and to create free standing walls.

Continued from page 7 also fibre free, so there is no risk of airborne

contamination.

Facings are of galvanised steel with a white food safe 120 micron PVC laminated coating designed to withstand frequent washing. The facings are designed such that each panel interlocks with its neighbour, providing a secure and consistent air tight joint which is then sealed with silicone for a continuous anti-bacterial barrier.

Sophisticated technology

Flexibility is a key feature, as Panel Projects uses sophisticated technology to customise any panel in its range to any size and shape. Designs can include doors, two of which were supplied with the bakery's systems; the first was a semi-flush, hinged personnel door with vision panel and closer and the second a sliding door providing access to a chill area. Both were finished with the same facing used in the panels and with the same food safe PVC coating.

Lightweight and durable, the PIR panels have also been used to create a suspended ceiling system in part of the bakery installation. Special coving was added to seal the angle between wall and ceiling panels, pro-

viding a smooth visual transition as well as protection from dust accumulation.

From the bakery's point of view, the systems supplied by Panel Projects tick all the boxes on their specification. As well as being unusually flexible in design terms, the installation process has been trouble-free.

A three man team from the bakery installed panelling in the 420m^2 mixing area in just two weeks, following the assembly instructions supplied with the system and with advice from Panel Projects when needed – mainly confined to the initial stages.

While the PIR panels supplied to Millers Bakery are ideally suited to an internal, food manufacturing environment, Panel Projects offers a wide range of panel systems, each with its own special characteristics. For example, panels with an aluminium honeycomb core provide a low cost solution for industrial applications, including walls, ceilings, floors, walkways and platforms. As flexible as the PIR system, the panels can be supplied in a number of honeycomb cell sizes, densities, thicknesses, lengths and widths.

Similarly, panels with a mineral fibre core are particularly well suited to wall applications requiring high performance fire resistance and/or soundproofing qualities, for

instance in firewalls and partitions. The core is a high performance, non-combustible mineral wool that is completely vermin and rot proof and virtually eliminates the growth of fungi, mould and bacteria.

Flush windows, as well as doors, can be specified in designs and a variety of specialist trims are available, such as cappings and angles. Panels can also be supplied framed on two, three or four sides to ensure an exceptionally flat, stable system providing maximum strength and rigidity.



One of the doors supplied by Panel Projects; a hinged personnel door with vision panel and closer.

Above everything else, Panel Projects is a solutions provider. Whether the application is commercial or industrial, internal or external, there is a panel system from their range that can be specified and customised to practically any size and shape. The extensive choice of materials, colours and textures is matched by large stock holdings that help to minimise lead times.

Expert back-up and support is available, with installation if required, as Millers Bakery can testify.

Bakery engineer Colin Mellish, who coordinated the procurement and installation of Panel Projects' panel systems, said he felt confident throughout the process.

"I have no hesitation in recommending Panel Projects for the quality of their product and the service they provide. Our repeat business with them speaks for itself," Colin told International Food Hygiene.

The free standing chilled room (centre back), created from panelling and accessed via a sliding door provided with the panels.

