

Lightweight panels: ideal for restoration projects

Many old commercial buildings in Johannesburg's CBD are currently being transformed from derelict office and retail environments, into secure and comfortable residential accommodation.

"These restoration projects are challenging for building contractors who have to cope with small passenger size lifts to transport heavy bulky construction materials, like conventional bricks," says Craig Paton-Ash of Ikhaya Futurehouse Systems.

"Using traditional building systems, like dry wall partitioning is problematic, as panels are easily damaged by residents, sound insulation is poor and they can be effortlessly knocked through."

"The Futurehouse system comprises high tensile steel mesh, encasing lightweight expanded polystyrene (EPS) walling panels. This system, with excellent thermal and sound insulation, is being successfully used in the seven-storey Sefton House renovation project, presently under construction. This high-strength system is cost competitive compared with traditional brickwork and these panels are quick and easy to build with, even with untrained labour.

"It is also easy for builders to carry these lightweight panels up many floors of high-rise buildings. Another advantage of this system is that walls have the feel and

appearance of concrete or plastered brick structures. Wall panels are cut to size to fit wall openings and are wire tied to each other and to a support rebar placed in the floor, columns and ceiling slabs. These rebars ensure each wall panel is plumb straight and secure."

The Futurehouse system – with an expanded polystyrene core that absorbs sound and reinforced plaster that reflects noise – prevents sound transference from room to room.



The Futurehouse lightweight expanded polystyrene system is being successfully used in the seven-storey Sefton House renovation project, presently under construction

All types of doors fit easily into this system. Doors are cut to size from the assembled panels and these cut out pieces are used elsewhere as filler pieces. Electrical and plumbing conduit is run behind the wire of the panels without any need to angle grind. The system is then finished with 20 to 25 mm of conventional plaster which can be spray applied to speed up the building process.

Another benefit of this cost-efficient system includes excellent security – these walls can only be breached with

heavyweight tools.

The Ikhaya Futurehouse thermally insulating walling system, has been designed to improve building comfort, enhance structural performance and to significantly reduce energy required for heating and cooling in commercial, industrial, institutional and residential buildings. ■