



## WALLS, CEILING & PARTITIONS OVERVIEW

This month we focus on wall, ceiling and partition products, in that order, looking at energy-conserving wall systems, loft caps, ball-proof acoustic ceilings, linear timber ceiling systems, folded-edge metal channels, non-combustible shafts and ducts, relocatable partitions and active glass



**Top** SAS International's C-Joint provides a tough but clear finish to partition junctions **Bottom** NBT ThermoPlan structural insulating blocks

Over the past year, the main legislative change affecting walls and ceilings has been the revision to Part L of the Building Regulations (Conservation of Fuel and Power), already well documented in the AJ and in AJ Specification (AJ 01.07.10). Amendments to Part B (Fire Safety) and E (Resistance to Sound), which will also affect partitions, are still some way off and BB93 (School Acoustics) remains at the discussion stage, as reported in Overview last February. So this month we will concentrate on products, rather than legislation.

### Conserving energy

NBT's ThermoPlan structural insulating blocks provide an answer to the new Part L requirement to take into account heat loss through party walls.

Made from honeycomb aerated clay, they provide good thermal and acoustic insulation with no need for additional insulation. They also provide a high level of airtightness, further reducing energy use. Being fully breathable to the passage of >>

Slurp Design's Seahorse Club features a Hunter Douglas Contract's linear open ceiling system with approximately 50 per cent demountable panels



water vapour, they help to maintain healthy internal environments, avoiding damp and condensation.

According to NBT, the low firing temperature of the blocks means ThermoPlan walls use 30 per cent less embodied energy and 50 per cent less embodied carbon than conventional cavity block walls with the same thermal performance.

#### Safety first with downlighters

Thermal insulation has to be continuous to be truly effective. But where downlighters are installed in lofts with thermal insulation laid over them, heat builds up and this could ignite materials around downlighters, or even the downlighters themselves.

Neil Perdell, national technical manager of Ei Electronics subsidiary Aico, says: 'The Electrical Safety Council's recent tests on downlighters to assess safety and thermal performance was very worrying, as all of the downlighters failed to meet one or more of the tests.' This led to the lamps' temperatures

exceeding specified limits, burnt-out wiring, scorching of surrounding materials and damage to the lamps' labels, making them unreadable. 'The Electrical Safety Council recommends Capped F downlighters but, as most downlighters are not Capped F, it is vital to use loft caps,' advises Perdell.

#### Ball-proof ceilings

Gym design involves the unusual acoustic problem of ball impact. Ceiling manufacturer OWA has launched a new ceiling system made of lightweight mineral wool tiles that resist the hardest ball throws, while providing good room acoustics. According to OWA, the OWAconstruct S 3 GS system meets new stability standards and was tested for ball impact resistance according to EN 13964, Annex D Class 1A. The S 3 bws system includes OWAacoustic mineral wool tiles, is lightweight and easy to service.

#### Linear thinking

Linear timber ceiling systems offer a number

of design benefits, demonstrated by Slurp Design's Seahorse Club at Pentewan Sands Holiday Park, Cornwall, which features a Hunter Douglas Contract's Linear Open Ceiling system. This uses a fixing method that ensures that panels remain straight and don't warp. Expansion and contraction is evenly divided over the length and width of panels, which are aligned by fastening pins and approximately 50 per cent are demountable.

The Linear Closed and Open system can be installed in concave, convex, or undulating curved configurations, which improve sound control. Acoustic felt and sound absorbing mineral wool overlays also enhance performance and a wide range of wood species and lacquer or stained finishes are available.

#### On-site health and safety and non-combustible shafts and ducts

British Gypsum has launched a new folded-edge metal channel, the Gypframe 50 FEC 50 Floor & Ceiling Channel, designed to improve on-site health and safety. >>



**Left** Slurp Design's Seahorse Club has a Hunter Douglas Contract's linear ceiling system with sound-absorbing overlay

**Below** Where thermal insulation is laid over downlighters in ceilings, it is vital to ensure the lamps are capped to eliminate the risk of fire

This replaces its 50mm standard edge floor and ceiling channel (50 C 50). British Gypsum is introducing folded edges to the entire Gypframe channel range. The folded edge channel is thicker than its single edge alternative, making it a safer option on site.

British Gypsum's new non-combustible variant to its ShaftWall shaft and duct encasement system uses 'Glasroc F FIRECASE', a non-combustible board lining designed for specialist fire applications, including smoke shafts in high rise buildings and underground transportation systems. It is available with 60, 90 and 120 minutes fire resistance and provides fully non-combustible linings on both sides of partitions, which can be installed quickly in confined spaces.

#### Relocatable and removable

Tax relief for relocatable partitioning has been allowable since 1958 and qualifying standards for these allowances came into effect in 2010. The new Annual Investment Allowance provides 100 per cent relief

on the first £100,000 of qualifying expenditure and 20 per cent for the balance. Partitioning that is intended to be movable qualifies as plant and machinery, and is therefore eligible for this allowance.

SAS International's new C-Joint provides a clear but tough finish for partitioning junctions. These almost invisible dry joints enable quick and easy alterations with no need to cut away silicone, saving time and cost on installation and complementing SAS International's range of partitioning systems and doors.

#### Active glass

One of the most alluring product types to have been developed in recent years in the partitions sector is active glass. Saint-Gobain describes its Quantum Glass products as 'chameleon' materials. They offer the possibility of a surface which is sometimes invisible, sometimes a screen or an image display and sometimes a surface providing light, heat or stereo sound.

