

PROJECT
BRISTOL
ROYAL INFIRMARY
PRE-OPERATIVE
ASSESSMENT

Welcome to the
Pre Operative Depart

Inspiring Great Spaces™

Armstrong®

CEILING SYSTEMS



Armstrong CoolZone Metal Tegular Plain & Ultima* Tegular on Armstrong 24mm Suspension Grid

Ceiling systems from Armstrong were specified for a new Pre-Operative Assessment Department and Surgical Admissions Suite at Bristol Royal Infirmary for their sustainability credentials.

The brief from University Hospitals Bristol NHS Foundation Trust to CMS Architects was to provide an enlarged accommodation schedule to facilitate the client's "Model of care" which streamlined two services into one department as part of a £143million investment in the redevelopment of Bristol Royal Infirmary.

The concept layout of the building was developed to consider passive design methods focusing on thermal mass, orientation, and natural lighting and cooling strategies in collaboration with end users (staff and patients) and representatives from infection control, hotel services and facilities management.

Architect

CMS Architects Ltd

Main Contractor

Halsall Construction

Client

University Hospitals Bristol
NHS Foundation Trust

Ceiling Contractor

Pegasus Interiors Ltd



CoolZone Metal Tegular Plain



Ultima+ Tegular



Armstrong Prelude 24mm
Suspension System



SOLUTIONS

300m² of Armstrong's CoolZone passive energy-saving tiles were used alongside the manufacturer's Ultima⁺ range, which is the world's first complete ceiling range to win Cradle to Cradle certification, with a Tegular edge detail on a 24mm suspension grid throughout the £2million replacement Surgical Admissions Suite (SAS) and Pre-Operative Assessment Department (POD).

The next-generation Ultima⁺ range features a bright white surface, with 87% light reflectance to help achieve 16% cost savings compared with indirect lighting.

Manufactured with up to 64% recycled content and 100% recyclable, it is available in three core densities that allow specifiers to engineer sound absorption and attenuation for optimum acoustic performance – standard Ultima⁺ giving medium density, Ultima⁺ OP giving low density and Ultima⁺ dB giving high density, up to 41 dB.

CoolZone plain metal tiles incorporate Phase Change Material (PCM) which absorbs heat during the day and releases it at night to reduce a building's reliance on air conditioning.

On heating during the day and cooling at night, the wax melts and solidifies. In this way the internal temperature is regulated, reducing and even eliminating the need for air conditioning. During initial tests, the CoolZone tiles delayed the onset of air conditioning by approximately four to five hours in an average office. Not only can this save around 40% of the HVAC energy costs and reduce peaks in demand for air conditioning but it can also help to improve the thermal comfort for the occupants.





TESTIMONIALS

CMS senior architect Paul Rogers said: *“The design embraced sustainable thinking from the outset, with the use of prefabrication construction methods, natural ventilation, maximising daylight with external louvres, and innovative PCM ceiling tiles.”*

“These are used throughout the building to absorb daytime solar gains and level any peaks, releasing their stored energy by night-time purge ventilation working with the natural ventilation system. This works particularly well as the building is only occupied during the day.”

He added: *“The project and building design champion sustainable principles. All materials specified were Green Guide A rated as a minimum standard. The PCM tiles enabled the project to achieve Part L requirements without*

the need for cooling and thus additional renewables/ photovoltaics to offset this increased energy usage.”

“It is early days but client feedback has been very positive, that the environment even during hot days has remained pleasant.”

Pegasus Ceilings & Partitions director Rich Shore said: *“The CoolZone tiles were easy to use and install and they give a great effect due to their metal finish. They complimented the Ultima® tiles very nicely.”*

“The whole project went smoothly, with all parties in the supply chain cooperating well and the technical support from Armstrong was exceptional.”



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NEW ARMSTRONG
CEILING APP



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