

## Case study: Nailsea School, North Somerset



### PROJECT DATA

<b>Project:</b>	Nailsea School, Nailsea, North Somerset
<b>Project outline:</b>	Re-build of co-educational technology and media arts college as a One School Pathfinder project (Building Schools for the Future)
<b>Value:</b>	£29 million
<b>Client:</b>	North Somerset Council
<b>Architect:</b>	Aedas Architects Ltd
<b>Main contractor:</b>	Carillion Building
<b>Sub-contractor:</b>	Optimum Drywall
<b>Products:</b>	Knauf Apertura Knauf Aquapanel Knauf Soundshield Knauf Impact Panel Knauf Wallboard
<b>Distributor:</b>	Sheffield Insulations
<b>Summary:</b>	"Knauf Apertura was specified for key ceilings where visual effect and acoustic performance are particularly important."

# Nailsea School, North Somerset



High performance walls and ceilings featuring plasterboard and related systems from Knauf Drywall help to create a quality learning environment in a newly built secondary school in north Somerset. The £29 million project, part of the Building Schools for the Future (BSF) programme, gives Nailsea School attractive and functional new surroundings for its role as a technology and media arts



college, and benchmarks future BSF projects in the county. Knauf Drywall's systems, installed by Optimum Drywall, set acoustic – and some aesthetic – standards for the new school.

## Steel-framed

The steel-framed, two storey school adjoins the former comprehensive school buildings which are being replaced by a car park and playing fields. Main contractor Carillion began work on the new school in May 2008, on the original playing fields, with September 2009 as its opening date. Clad with brick and coloured panels, the new building accommodates 1,500 students.

With Knauf Drywall systems sourced through Sheffield Insulations' nearby Avonmouth branch, Optimum Drywall installed floor-to-soffit walls between teaching rooms, consisting of 70mm Knauf 'C' Studs at 600mm centres, with two layers of 15mm Knauf Soundshield high performance plasterboard on either side and 25mm Knauf Crown Partition Roll in the voids. This construction, nominally 130mm before finishes, comfortably meets the 45dB (DnTw) airborne sound reduction between general teaching areas, as required by Building Bulletin 93.

## Separating walls

Walls separating teaching areas from corridors have 70mm Knauf 'C' Studs at 400mm centres, one layer of 15mm Knauf Impact Panel on each side and 25mm void insulation, also meeting BB93 acoustic requirements while ensuring an even more robust partition for high traffic areas. The partition designs also involved deflection head and abutment joint detailing to maintain acoustic performance and fire resistance, despite any movement in the structure.

Optimum Operations Director Matthew Davies says the school's architects and acoustic consultants specified Knauf Apertura for key ceilings where visual effect and acoustic performance are particularly important. He says:

"The school's central atrium, for example, has a 650m<sup>2</sup> ceiling of 10/23 Knauf Apertura circular perforated plasterboard, which reduces reverberation and provides a visually dramatic seamless finish."

Slotted Knauf Apertura B6 patterned plasterboard is used in the school's double volume science 'superlabs'. Ceilings in other teaching areas use the Knauf MF suspended system with 12.5mm Knauf Standard Wallboard.

## Tile backer boards

In Nailsea School's wet areas, such as changing room showers, ceramic tiles are fixed on Knauf Aquapanel Tile Backer Board. This incredibly strong 12.5mm fibre reinforced cement board is designed especially for wet areas – where it supports tiling up to 50kg/m<sup>2</sup>, and virtually eliminates any risk of tile failures.

