

case study

ROYAL WILLIAM YARD, PLYMOUTH



Developer and Main Contractor:
Urban Splash

Architects:
Acanthus Ferguson Mann

Products installed:
C40 & CK30 acoustic floor systems
AC90/2FP acoustic ceiling system
Isolating strip

Constructed between 1825 and 1833, the Clarence and Brewhouse buildings are part of the Grade I listed Royal William Yard, the main storage and victualling complex of the Royal Navy for over 150 years. Comprising seven buildings in total, the conversion of the first two won a RIBA Award in 2006.

In the three storey Clarence building isolation strip was fixed to the top of floor joists before the hardwood floor was laid in order to meet required sound insulation levels. In 2006 the larger three to six storey Brewhouse was completed, providing a mix of 130 one, two and three bedroom apartments with ground floor business units, café, exhibition and leisure space.

Throughout Brewhouse original stone wall and oak beams were left exposed causing possible acoustic insulation problems. However, early on-site testing by InstaFloor demonstrated that its floor and ceiling systems met required sound insulation levels, exceeding Building Regs Part E, even on awkward sloping ceilings, around exposed beams and on uneven original floors.

1,000m² of C40 cradle and batten flooring was installed in different apartment areas and adjusted on site to provide a totally level floor finish. Performance levels were achieved by laying the tongue and groove hardwood floors direct to the acoustic battens that sit in the special rubber cradles. Some 600m² of adjustable AC90/2FP ceiling system ensured good sound insulation and prevented noise transfer over party walls.

