

CASE STUDY

ECLIPSE LEISURE CENTRE



AWARD WINNING PASSIVE HOUSE LEISURE CENTRE

Issue Number: 172

VISION

The Eclipse Leisure Centre in Staines-upon-Thames is the UK's largest wet and dry leisure centre to achieve Passive House certification. Spelthorne Borough Council's ambitious goal was to create one of the world's most sustainable leisure centres.

The council's vision was transformed into reality by GT3 Architects, Gale & Snowden Architects Ltd and built by Willmott Dixon.

Eclipse consumes 60% less energy than traditional leisure facilities, setting a new standard for sustainability in the sector, significantly reducing its environmental impact.

This state-of-the-art facility boasts an impressive range of amenities, including a 25m main pool, learner pool, spa, gym, Clip 'n Climb with 14 climbing experiences, 6-court sports hall with LED markings and artificial rooftop football pitches.

Building: Spelthorne Leisure Centre

Location: Staines-upon-Thames

Architects: GT3 Architects/Gale & Snowden

Main Contractor: Willmott Dixon

Installer: Leay Ltd

© 2025 Kawneer





TRANSFORMATION

Recognised for its outstanding environmental efficiency and sustainability performance credentials, Eclipse Leisure Centre is one of the world's largest Passive House certified leisure centres.

Kawneer played a crucial role in achieving these sustainability goals.

System selection was driven by stringent U-value and air tightness targets. Air tightness was particularly challenging to achieve, especially for the doors. This led to the specification of high performing, energy efficient doors, developed in collaboration between our UK & European design teams, for which a project-specific threshold detail was developed.

Active communication between the global teams at Kawneer makes these types of solutions possible for our customers, pushing the boundaries to deliver a project exceeding expectations and driving industry standards forward.

The following Kawneer solutions were selected for the project:

- **AA®100 HI:** Enhanced thermal performance curtain wall system.
- **AA®720 Bottom Hung Open Out Smoke Vents**
- **Windows & Doors:** High performing, energy-efficient window and door combination.

The Kawneer systems were fabricated and installed by LEAY LTD, who have been collaborating with us for over half a century. Their knowledge and expertise of our systems and Passive House certified staff helped to ensure the ambitious performance targets were attained.

David Pettett, Pre-Construction Manager at LEAY LTD added: "Outside of the domestic market, Passive House, certainly in England, is a relatively new concept to achieve. With the help of Kawneer, along with some extensive U value and fRsi calculations, the performance required was realised.

"In order to achieve such a high level of thermal performance, airtightness and robust detailing requires a collaborative approach and coordination between subcontractors and the supply chain. Early engagement during design was key to the project's success.

"This could not have been achieved without a diligent installation, with a huge emphasis on quality. Furthermore, whilst this was our first Passive House project, with the help and collaboration with Willmott Dixon, Gale and Snowdon, GT3 Architects, Kawneer and our wider supply chain, we are now able to say, 'we did it!'

"Since the completion of this project, and with the extensive R&D carried out by Kawneer, the recent release of the KWD92 UT+ window means we can offer an increasing range of solutions to achieve Passive House."



Issue Number: 172

REALISATION

Eclipse Leisure Centre's highly praised design and functionality was recognised with a Silver Award at the iESE Public Sector Transformation Awards, acknowledging Spelthorne Borough Council's commitment to innovative technologies.

Leader of Spelthorne Borough Council, Cllr Joanne Sexton, stated: "We are very proud of everything that has been achieved and the fact we have delivered one of the most advanced and energy-efficient centres in the world."

Mark Gowdridge, Director at GT3 Architects, added: "As one of the UK's first leisure centres designed to Passive House standards, Eclipse has shown us the future of leisure in terms of reduced energy waste and running costs."

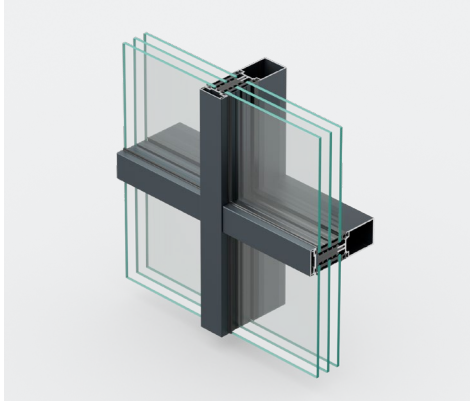
Richard Poulter, Managing Director at Willmott Dixon Construction South, commented: "This state-of-the-art facility reflects our commitment to building high-quality, energy-efficient projects that truly benefit the community. The Eclipse Centre sets a new benchmark for sustainability in leisure construction."

The building stands as a testament to what can be achieved through collaboration, forward-thinking design, and a steadfast commitment to sustainability.

Is your next project looking for a tailor-made solution such as this? Contact our team today.

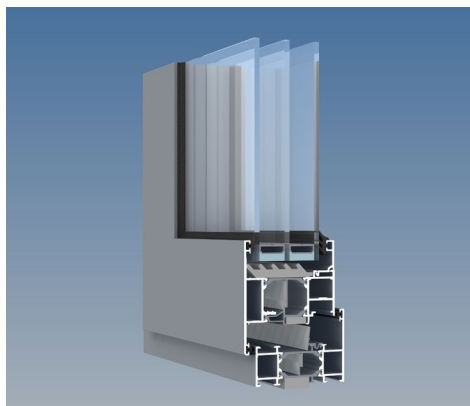
PRODUCT SPECIFICATION HIGHLIGHTS

Issue Number: 172



AA®100 HI CURTAIN WALL SYSTEM

- Glazing up to 60mm
- Enhanced thermal performance to meet or exceed current Building Regulations
- Passive House certified solution available



AA®720 BOTTOM HUNG OPEN OUT SMOKE VENTS

- Range of locking options available – for flexibility. Choose from standard Espagnolette locking to enhanced security in line with PAS 24:2016
- Projected top hung or side hung or butt hinge options – total flexibility, suits most casement project applications
- Suites with the AA®720 series, AA®100/AA®110 Curtain Walling, 451PT Framing and Door Systems



Please contact our Architectural Services Team if you have a project you would like to discuss:
Tel: 01928 502604 / Email: kawneerAST@arconic.com

© 2025 Kawneer

Photos: Places Leisure/GT3 Architects/Gale & Snowden/Willmott Dixon

KAWNEER

Kawneer UK Ltd
Astmoor Road
Astmoor Industrial Estate
Runcorn, Cheshire
WA7 1QQ
United Kingdom

Tel: +44 (0) 1928 502604
E-mail: kawneerAST@arconic.com

www.kawneer.co.uk