



Case Study:
Deeside Leisure Centre
Prelasti EPDM – CENTRIX – Mechanical Fix System

Head Office:

AAC Waterproofing Ltd
Gaerwen Industrial Estate,
Gaerwen
Anglesey
North Wales
LL60 6HR

T: (01248) 421955 **F:**(01248) 421052
E: info@aac-prelasti.co.uk **W:** aac-prelasti.co.uk

Project: Deeside Leisure Centre,
Deeside, North Wales

Client: ISG Plc

Roofing contractor: AAC
Waterproofing (Prelasti)

Summary: As part of a refurbishment programme, Deeside Leisure Centre required an upgrade which was reaching the end of its usable life. An EPDM membrane could be laid over the top of the existing structure and offer superior durability and longevity. AAC Waterproofing's Prelasti EPDM was prefabricated off-site in a controlled environment, reducing on-site works. In addition, the Centrix mechanical fixing system provided rapid and low-weight installation. The work was complete inside three weeks, but waterproofing took just a few days.

"Prelasti EPDM waterproofing and the Centrix fixing system delivered an effective and efficient solution. The roof was waterproofed within days and completion works required minimal manpower thereafter. Through the quality of their product and their professionalism, AAC Waterproofing proved the ideal roofing contractor."

Simon Bunting, Project Manager, ISG

The challenge: Cover existing 2,000 sq m roof with Prelasti EPDM as part of a leisure centre refurbishment, with minimal disruption to the centre and the public

AAC technicians conducted a comprehensive site survey and concluded that the roof and project requirements would suit a mechanical fixing system rather than adhesive. Sub-contractors Fix Fast conducted a "pull test" to assess suitability, and tested wind uplift and the strength of the decking.

At its prefabrication factory, AAC created seven made-to-measure sheets using a vulcaniser which bonds Prelasti EPDM strips at a molecular level.

Assembled in this controlled environment, the membrane has a service life exceeding 50 years.



Creating the roof off-site reduces time, manpower and expense at the works site, and reduces the potential for mistakes, disruption and delay.

The roof was quickly covered with the made-to-measure sheets and cut to fit. Fix Fast supplied the Centrix fixing system and marked out initial fixing points to secure the membrane sheets.



The initial fixings are sufficient to secure the membranes, and act as a datum for the remaining fix points to complete the installation.

The Centrix system consists of screws that fix to the substrate and a special washer secured to the screw via a microwave induction method. This means the membrane does not have to be punctured, and the fixtures do not have to be made at membrane overlaps.



The design of fasteners is done individually for each specific project. If needed it is then possible to dismantle the panel without destroying the membrane.

Once the membranes are secured, the roof is waterproof and the remaining fixtures can be added without time pressure. The work is fast and requires little manpower or technical knowledge to complete.

Using a mechanical fixing solution for the new waterproof membrane would enable rapid, unobtrusive completion, and avoid the risk of trapping air bubbles or creasing that can occur with adhesive



With the membrane secured, little skilled manpower is required to remain on site to complete the fixing process – reducing on-site time and cost.

Prelasti Specification

- Independently laboratory tested EPDM with service life exceeding 50 years
- Elastomeric and thermo-set to reduce stress by temperature (-30C to +150C range), windload, snow, UV-radiation and ponding water
- Seaming technology uses heat and pressure to create chemical cross-linked bonds
- CE marking according to EN 13956 Flexible sheet for waterproofing
- BBA Certificate 02/3963, British Board of Agrément

Prelasti Installation Solutions

As the EPDM membrane is prefabricated off-site, project areas require simple preparation. All Prelasti roofing system materials are supplied for the following:

- Adhered installations, ideal for light load-bearing structures or steep roofing. Prelasti is bonded to the substrate using PUR adhesive
- Centrix delivers fast, low weight construction waterproofing. No puncturing needed – the Prelasti membrane is fixed to Centrix washers on the substrate using a handheld induction (intense magnetic field) device
- Gravel ballast roof for reduced rainwater run-off and gutter/drainpipe blocking, better flame resistance and improved aesthetics
- Green roof solutions share all the benefits of a ballast roof, plus absorb carbon emissions and reduce noise

Ideal Roof Solution for

- Light, load-bearing structures (such as timber-framed construction)
- Green roofs and garden roofs, either flat or pitched
- Where flammable construction materials are used (timber) as Prelasti does not require hot works
- Unusual shapes or complex roof spaces
- Adverse weather locations

Why Prelasti?

Prelasti EPDM is a UV stable and ozone resistant synthetic rubber material. It has a BRE A+ rating and is more environmentally friendly than PVC materials. Voted no 1 in the Green Roofing Digest.

Thinner and more lightweight than similar materials, its vulcanising bonding technology makes it more hardwearing than adhered solutions. It carries a 20-year guarantee with a proven life expectancy of 50 years, outlasting many rivals.

Why AAC?

AAC Waterproofing is the sole UK importer and distributor of Prelasti. We work with customers through our team of trained installation technicians or through a network of Approved Contractors.

We have an extensive client base including Local Authorities, NHS Trusts, the MoD, major construction companies and building management organisations.

AAC Waterproofing prefabricates Prelasti EPDM material off-site, at its state-of-the-art facility in North Wales.

Benefits of off-site manufacture include:

- Superior-fitting product, created in a controlled environment.
- Arrival on-site ready to install, reducing time to complete works.
- Lower staff levels required.
- Reduction in associated costs, including site management fees.

Contact Us

AAC Waterproofing Ltd (Prelasti)
Industrial Estate
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