Radmat building products

Specialists in Roofing and Waterproofing

CASE STUDY

Gasholder Triplets

RESIDENTIAL DEVELOPMENT:
145 apartments and penthouses, housed within Grade II Listed Gasholder structures.

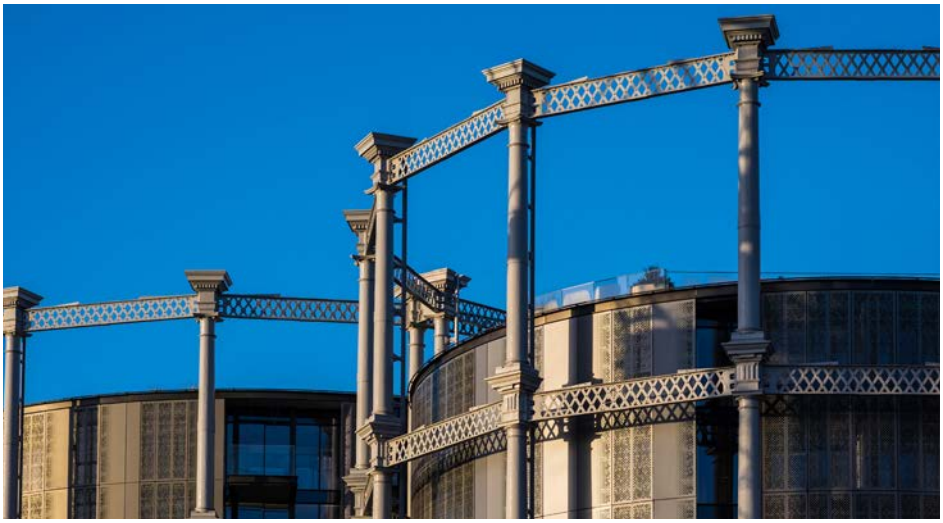
RADMAT PRODUCTS USED:
- ProTherm Quantum PURE
- ProTherm Regupol RCM
- ProTherm Flex Infill
- ProTherm G Insulation

ARCHITECTS:
Wilkinson Eyre Design Architects

Located in the heart of London, initially constructed 160 years ago, the newly-restored Gasholder Triplets frames have been injected with a new burst of flamboyant life. The cast iron structures have been restored and re-homed to just North of Regent's Canal as part of the Kings Cross regeneration programme. The original Triplet frames have been re-erected and re-purposed around a series of 1, 2, 3 and 4 bedroom apartment suites.

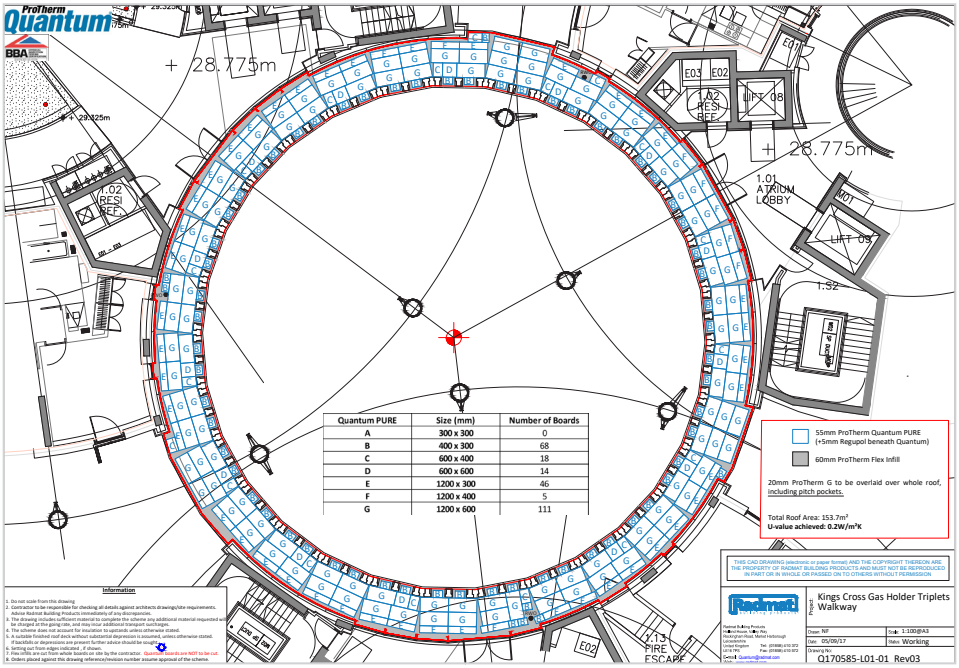
Wilkinson Eyre Design Architects birthed the initial design concept, for which **Radmat Building Products** were contracted to supply the thermal insulation for the characteristic circular roof gardens and walkways. **ProTherm Quantum** was chosen to dramatically reduce the depth of the finished build and its unique adaptability to fit the difficult space.

- Bespoke insulation design to fit and overcome curved structure difficulties
- Minimal space occupied while achieving maximum thermal performance



Gasholder Triplets

Shepley Engineers in Yorkshire spent two years restoring the Grade II listed structures, demanding the expertise and passion of a highly skilled team But first, specialist contractors had to carefully dismantle the structures with 20-ton cranes and transport each section to the Shepley workshop, where they would slowly be brought back to life. The result is an amazing and most unique highly specified apartments.



One of the biggest challenges faced when constructing such a stunning piece of architecture was the circular shape of the apartments, as they were built to mimic the shape of the Triplet frames which enclose them.

A bespoke design was meticulously specified to fit the difficult areas, using Radmat's **ProTherm Quantum PURE** Vacuum Insulation Panels (VIP) system, accompanied by **ProTherm Flex Infill boards**, which are designed to be cut and fit around penetrations and curved upstands. The system was then able to be applied to the difficult curvature of the structure with ease.

The Quantum system was then supplied over hotmelt waterproofing to the external walkway at Level 1 to provide a level threshold detail. There was a limited upstand height and the client required a 0.2W/m^{2}K U-value in addition the roof shape was complex, with a high number of pitch pockets. Hence the Quantum and ProTherm Flex Infill boards were carefully designed to fill the space economically whilst still achieving the best thermal and level threshold performance.

Quantum was the only BBA certified VIP insulation on the market able to meet the required U-value and maintain a 75mm waterproofing upstand as per the NHBC requirements. Radmat also provided a full site survey, bespoke layout design and installation support on site.

With a dramatic reduction in depth and no loss of thermal performance, ProTherm Quantum was the ideal choice to achieve exceptional thermal targets and dramatically reduce the depth of the finished build.