



CASE STUDY

104-106 WELLING HIGH STREET, WELLING

IKO Permateg LI Inverted Waterproofing System
300m²



Project sector: Commercial/Residential

CONTRACTOR

EK Facades Ltd



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PROJECT OVERVIEW

IKO, in partnership with EK Facades Ltd, successfully delivered a roof waterproofing solution on the redevelopment of 104-106 Welling High Street, situated in South East London, transforming a dilapidated former commercial building into a contemporary, mixed-use development. Located in a prominent town-centre position, close to public transport and local amenities, the scheme included Class E commercial/office space at ground and first floor level, with nine lift-served residential apartments above, arranged over part four and part five storeys.

IKO Permatec LI inverted hot melt waterproofing system was specified to meet the project's stringent compliance and warranty criteria. The selection of this system provided a fully bonded, monolithic membrane, BBA approved solution, while the paver and ballast roof finishes delivered a fit-for-purpose surface, suited to the building's operational requirements.





CHALLENGES

The project incorporated multiple flat roof and amenity areas, each featuring differing build-ups, structural levels, and detailing requirements. These variations demanded careful coordination to ensure consistent falls across all surfaces, maintain effective drainage routes, and achieve compliant upstand heights in accordance with current roofing standards. The design team also had to account for differential roof zones where structural step-downs, insulation thickness changes, and interface junctions created additional geometric constraints.

In addition, the works involved a significant number of penetrations, including M&E plant supports and ventilation outlets - which required sequencing and correct detailing to maintain the continuity of the waterproofing layer. These penetrations increased the complexity of both the waterproofing design and on-site installation. As a result, enhanced coordination between trades, careful substrate preparation, and rigorous quality control were essential to ensure long-term system integrity.





SOLUTION

IKO Permateg LI hot melt waterproofing was selected as the flat roof solution for the Welling High Street project, chosen for its durability (see BBA Certificate 03/4009 durability statement), seamless application and suitability for flat roofs, terraces and amenity areas. IKO Permateg LI is manufactured using a carefully engineered formulation with over 50% lower upfront embodied carbon compared to our previous hot melt system, as verified by third-party EPD data.

The roof system comprised of a full IKO waterproofing build-up, including Permateg primer, Permateg LI hot melt waterproofing with reinforcement, and Permaguard protection to both field areas and exposed upstands. Thermal efficiency was achieved by using IKO enertherm XPS PLUS insulation, supported by a water-flow reducing layer IKO enertherm WCL, together with IKO enertherm upstand insulation where there was a requirement. The final roof finishes included a combination of gravel ballast and paving.

The waterproofing was installed by IKO-approved EK Facades operatives in full compliance with the specification, with substrates checked and prepared beforehand. Quality was assured through continuous supervision, adherence to IKO installation guidelines, and protection of completed areas for follow on trades. The finished roof areas are designed to enable safe access for inspection and routine maintenance.





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On this project, EK Facades and IKO demonstrated strong CSR values by using trained, IKO-approved operatives who had completed all required product and system training, ensuring responsible and competent installation. The collaboration also supported skills development through EK Facades' ongoing apprenticeship and mentoring initiatives, helping to build local capability while delivering the project to a high standard. Additionally, EK Facades' involvement in community and charitable initiatives reinforced the shared commitment - between contractor and manufacturer - to supporting local communities and promoting long-term social value through the project.

IKO GUARANTEE

20 Year Materials & Workmanship Guarantee

PRODUCT / SYSTEMS

- IKO Permaterc LI Inverted Waterproofing System
- IKO enertherm XPS Insulation
- IKO enertherm WCL (Water Control Layer)



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