



CASE STUDY



Delivering solutions together.

OVERLAY ON THE ROOF OF A BLOCK OF APARTMENTS
PRESTON

SANDOWN COURT

Authorised Contractor:
Permicoat Ltd

Systems
Triflex ProTect® Warm
Triflex ProDetail®
Triflex ProFibre

Area
750m²

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Introduction

A high-rise block of apartments in the centre of Preston was in urgent need of a new warm roof waterproofing system for its flat roof as the existing waterproofing system had comprehensively failed, resulting in the penthouse suite experiencing localised flooding.

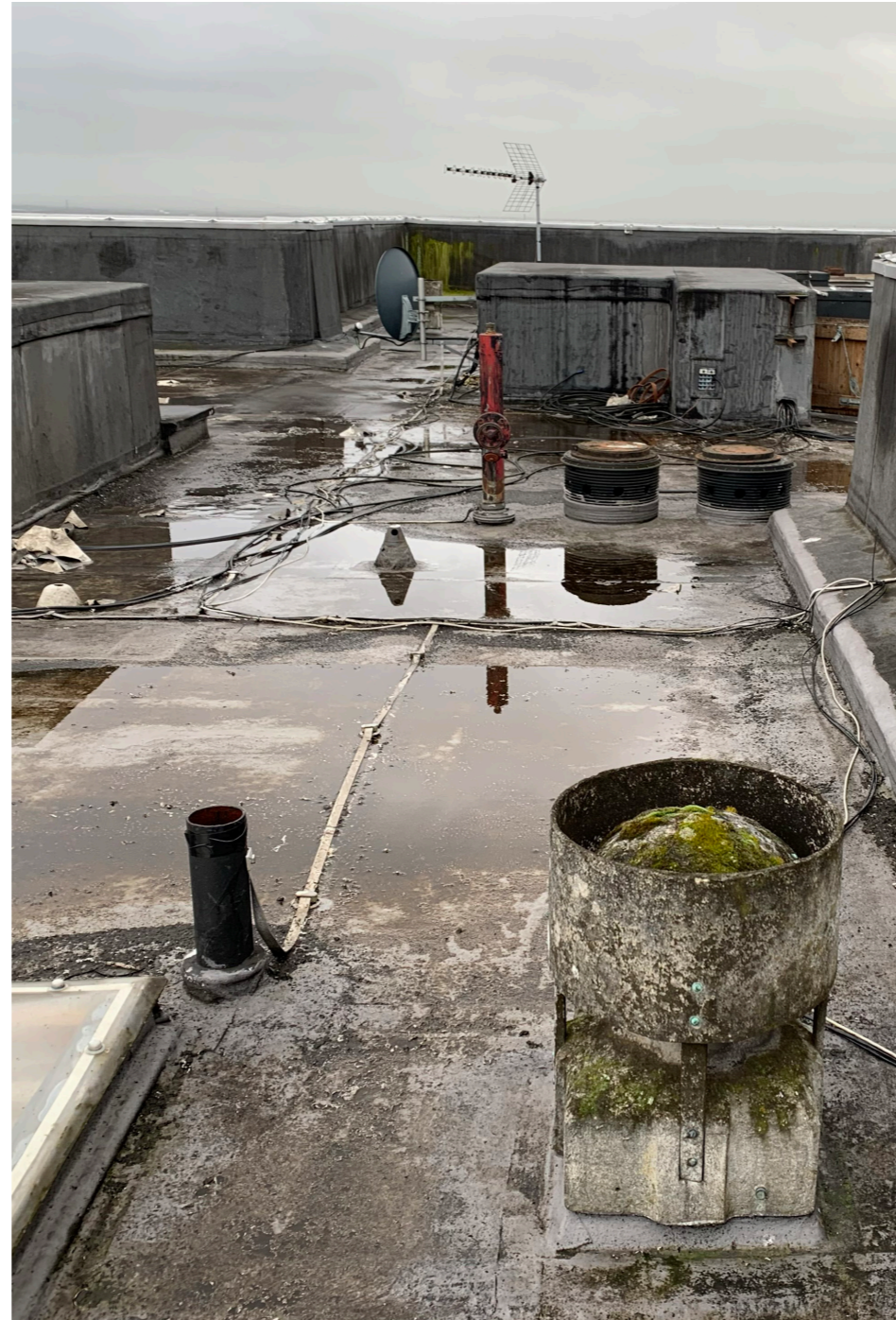
“After the initial site visit and roof survey of Sandown Court, it was clear that the roof was in desperate need of some major works. The existing roof was installed around 6 years ago and was possibly in the worst state I or my colleagues had seen a roof.”

Commercial Director Permicoat Ltd.



“Our client expressed their disappointment in the way that the original product manufacturer and installing contractor had failed to offer any form of support. Naturally, our client requested an alternative solution to that previously installed.”

Commercial Director Permicoat Ltd.



The Challenge

Triflex Authorised Contractors, Permicoat Ltd were tasked to provide an in-depth specification for replacing the failing waterproofing system and improving the thermal performance of the build-up. Considering the logistics of installing a new system on a high-rise tower block where access was challenging, Permicoat Ltd needed materials that were lightweight and easy to transport from ground level. The removal and disposal of the old waterproofing system could also prove difficult on such a tall building. Limiting the risk of exposure to water ingress during the works was also a prime consideration.

Following thorough investigations from Permicoat Ltd and Triflex, the build-up of the current system was established. This consisted of a structural concrete deck, mastic asphalt, an unknown liquid coating, 80mm thick PIR insulation and a further unknown liquid coating. As part of the condition survey and core testing, the existing roof build up was found to be delaminating and blistering was evident in several areas. With an indicative U-value of 0.24 W/m²K, the existing warm roof did not meet current Building Regulations, and due to its poor state, needed to be replaced.

The Solution

Sustainable option to reduce wastage and improve thermal performance

A Triflex ProTect warm roof was specified to meet the requirements of the current Building Regulations for Existing Dwellings: Approved Document L1B; i.e. a U-value of 0.18 W/m²K. Because the Triflex ProTect system was compatible with all of the existing substrates, different options were possible to provide a seamless, reliable waterproofing membrane. Whilst one option was to remove all the existing build up to the underlying concrete, and then apply the Triflex ProTect warm roof system, an alternative was also proposed.

The second option was based on reducing costs, reducing waste to landfill and minimising the risks of water ingress during the works. Here, the existing asphalt layer could be used as a robust vapour control layer providing a more sustainable and cost-effective choice, whilst protecting the structure from water ingress during the works. This was under the proviso that once exposed, the in-situ mastic asphalt was in suitable condition to receive the new Triflex warm roof build-up and would be repaired where this was not the case.

As the programme of works commenced, Permicoat Ltd removed the existing coating and insulation. In conjunction with Triflex, it was confirmed that the majority of the existing asphalt was in a sound condition and as a result would provide a suitable vapour control layer. In the limited areas where the asphalt was defective, this was removed. In its place, a self-adhesive Triflex Vapour Control Layer was installed to ensure a continuous layer of protection to the fabric of the building. New insulation to provide a warm roof to meet current building regulations was then installed using Triflex Insulation Adhesive. The insulation was then rapidly protected and made watertight using a self-adhesive Triflex Carrier Membrane. Lastly, Triflex ProTect, a wet-on-wet applied, fleece fabric reinforced waterproofing was installed quickly and efficiently thanks to the exceptionally rapid curing capability of the PMMA-based system.



“Triflex was the chosen product because we know of the superb back-up that we can expect to receive from Triflex and that the Triflex ProTect system is one that we believe to be one of the best in the market.

The time spent with our clients to go through the presentation was well received which left them feeling reassured that they were using a reputable manufacturer and contractor, both with a track history of high-quality applications.

Triflex and Permicoat met together with the Sandown Court Management committee to talk them through the entire process, from the initial findings during the site survey, proposed specification, technical support and how the works would be monitored by both Permicoat management and Triflex.

We thoroughly enjoyed working on this project with Triflex and think that the finished project looks fantastic.”

Commercial Director Permicoat Ltd



Details and penetrations easily accommodated

Detailing including upstands and penetrations required a tailored specialist solution. Triflex ProDetail and Triflex ProFibre were specified to provide to deal with these issues. Triflex ProDetail is also a fleece fabric reinforced, wet-on-wet application system. Its thixotropic formula allows it to be installed onto vertical and even inverted surfaces without fear of ‘slumping’ or product loss. For more complex details and those with restricted access, Triflex ProFibre was proposed as it contains individual re-enforcement fibres within its resin body, making it easier to apply with a brush. The individual fibres interlock to provide additional tensile strength and re-enforcement to the elastomeric resin.

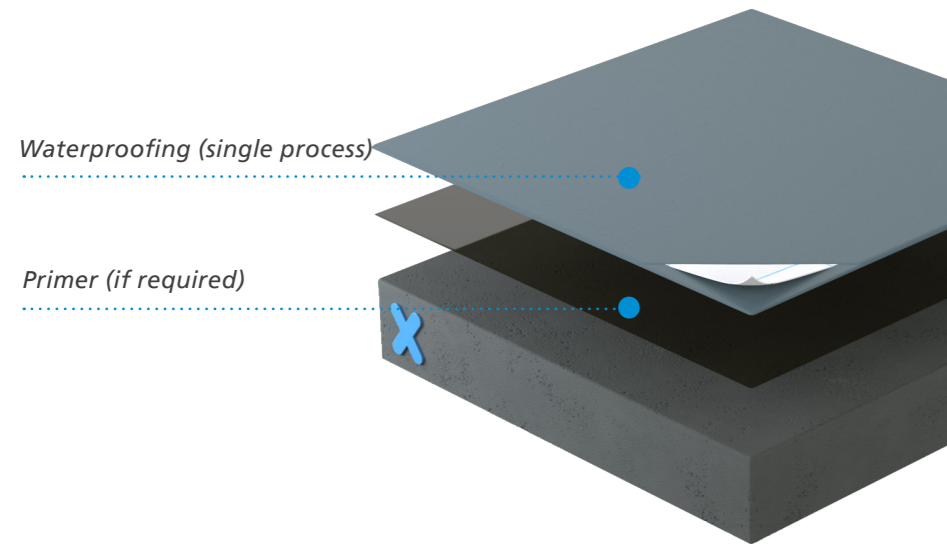
Maximising efficiency and weather windows

All Triflex resins are contained in tins, enabling them to be easily and safely transported to the roof level. The systems specified are all cold applied and rapid curing which allows works to be completed in tight programmes. Permicoat Ltd were able to apply the waterproofing within weather windows as Triflex ProTect is rainproof in as little as 30 minutes. During the project, Permicoat Ltd also showcased their skills and demonstrated the products’ capabilities by adding a Triflex Logo to the installation for visual effect.

Works were completed to programme by September 2020 with a high level of workmanship. The finished high-rise warm roof system providing a reliable and long lasting waterproofing to the Sandown Court Apartments for many years to come.

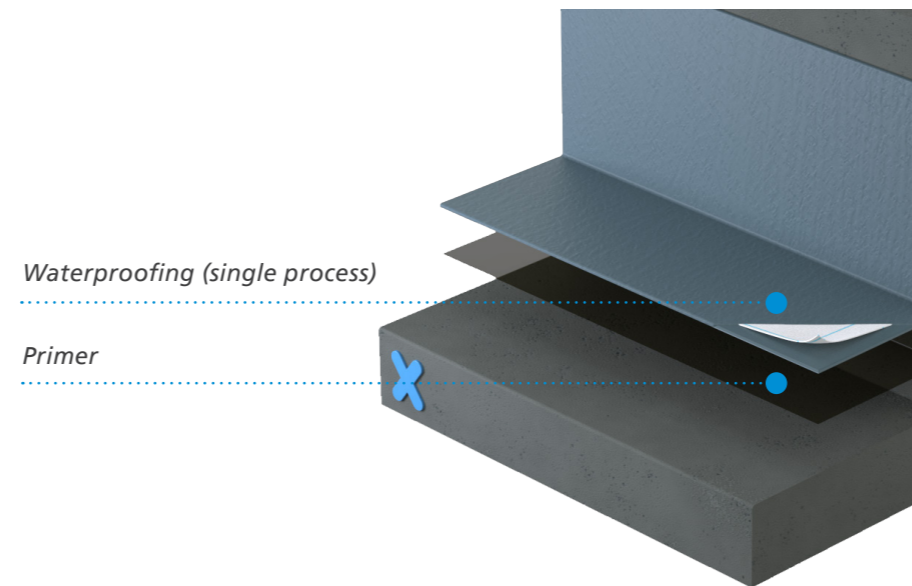
System benefits Triflex ProProtect®

- Totally cold applied, with no risk from hot works
- Compatible with virtually all roof substrates
- Suitable for all roof build-ups and applications
- Exceptionally rapid curing / rainproof times, even at low temperatures
- Fully reinforced waterproofing technology
- Suitable for zero pitch, completely flat and pitched roofs
- Simple, single process waterproofing application
- Hydrolysis (standing and ponding water) resistant



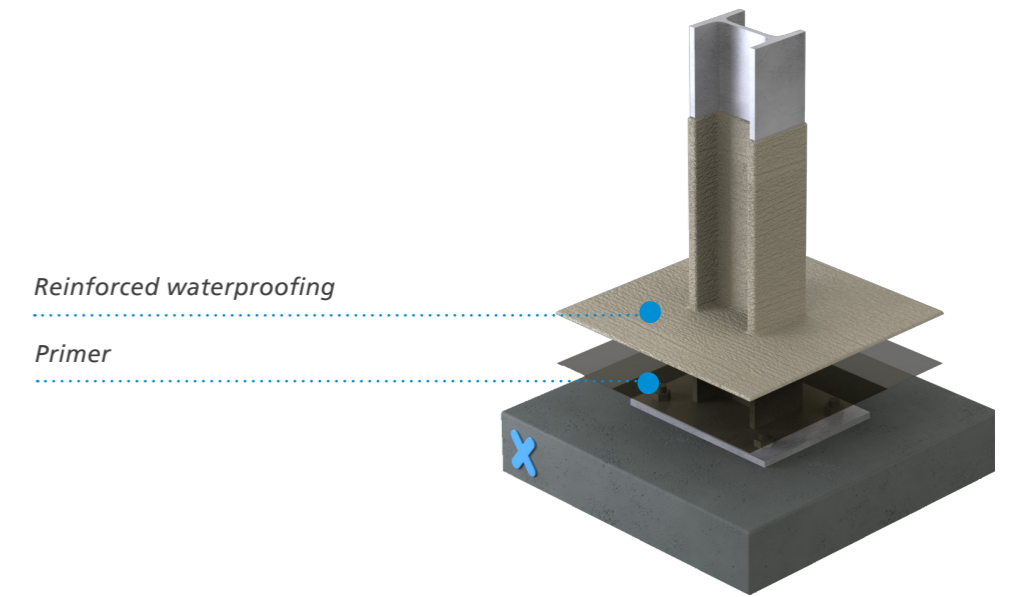
System benefits Triflex ProDetail®

- Waterproof down to the smallest detail
- Compatible with virtually all substrates including asphalt
- Cold applied, fast curing with rapid installation
- Simple, single process waterproofing application
- Rapid curing system - even at low temperatures
- Fully reinforced technology
- Certified to the highest standards



System benefits Triflex ProFibre

- Waterproof down to the smallest detail
- Compatible with virtually all substrates including asphalt
- Cold applied, fast curing with rapid installation
- Simple, single process waterproofing application
- Rapid curing system - even at low temperatures
- Fully reinforced technology





Delivering solutions together.

Triflex is the leading European specialist in cold liquid applied waterproofing, surfacing and marking resins. Our high-quality systems provide reliable and lasting waterproofing, surfacing, protection and markings for roofs, walkways, balconies, terraces, car parks, roads and infrastructure.

We are a family owned and operated company that provides tailored solutions worldwide. From our production facilities based in Minden, Germany, we have been researching and developing solutions designed to protect and repair the built environment for more than 40 years.

From our UK and Ireland headquarters based in Stone, Staffordshire we pride ourselves on providing our clients with tailored solutions and exceptional levels of service and support throughout all stages of their project. From conducting in-depth site surveys to our comprehensive testing and off-site and on-site support, we ensure that your project is completed on time, expertly. Triflex solutions are certified to the highest standards and are backed up by long-term meaningful warranties, ensuring peace of mind for years to come.



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