

Case Study

Project/customer name:	St Clare's Secondary School
Year of application:	2005
Location/country:	Essex / UK
Building type:	School
Authorized contractor:	Russell Trew Ltd.
Additional project details:	Waterproofing in standing water

General view:



Challenge:

- The 2,500m² concrete flat roof, which still featured the original mastic asphalt waterproofing, was at the end of its service life due to progressive deterioration.
- Trying to overlay with a loose laid EPDM membrane, a filter fleece, extruded polystyrene insulation, and an overburden of stone ballast, had failed just after a short time allowing water to penetrate through.
- Given the need to minimize costs, the existing mastic asphalt roof covering should be preserved and if practical, re-use the existing XPS insulation and ballast.
- Another primary challenge was the need to withstand standing water.



Solution:

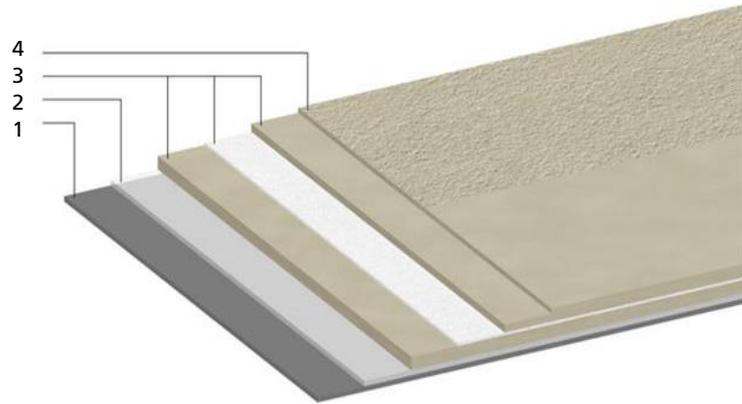
- Triflex ProTect system was ultimately specified due to its exceptional resistance to hydrolysis (standing water), totally cold application and proven compatibility with asphalt (more than 1 million m² has been overlaid in the UK in the last 25 years).
- The Triflex ProDetail system was also used to waterproof all upstands, roof light kerbs, penetrations and perimeter edge details.
- The rapid cure time and single process application of the Triflex systems, allowed priority roof areas to be waterproofed quickly and within a short time-frame, so there was little or no disruption to the daily running of the school.



Products used at a glance:

Triflex offers liquid PMMA* based resins (e.g. ProDetail for details or ProTect for areas):

1. Substrate
2. Primer, if necessary
3. Waterproofing layers
 - a) Triflex ProDetail (2kg / sqm)
 - b) Triflex Special Fleece
 - c) Triflex ProDetail (1 kg / sqm)
4. Finish, if wanted



* Polymethyl methacrylate

Continually improved over 40 years in order to become the market leader in Europe.



Main benefits (European Guideline ETAG 005):

- 25 years estimated working life performance
- Fast curing time and rainproof after only 30 minutes
- Application possible till humidity of 99% and withstands surface temperature after application up to 90° C
- A liquid seamless solution that fits to any structure with complex geometry
- Adherence to any surfaces (Aluminum, steel, plastic, glass, bitumen, concrete, ...)
- Solvent free, environmental friendly and with no risk to health
- High resistance to chemicals, roots and rhizome, alkali and hydrolysis
- Cold application with no flame and flame retardant
- Highly UV resistant (1000 MJ/m² = 325 days)
- Easy to impose loads after application (for particular demands as green roofs)