

Case Study

Project/customer name:	Orchards Academy
Year of application:	2017
Location/country:	London / UK
Building type:	School
Authorized contractor:	Makers Construction Limited
Additional project details:	Fast solution and no hot works allowed

General view:



Challenge:

- The building had been suffering from water ingress from the roof. A fast solution with minimum disruption to the school's schedule was required.
- Any surface defects that have been present were masked by the existing finish, which contained limestone chippings. They had developed a considerable amount of moss and vegetation over time, and held vast amounts of water.
- The demand was a solution that did not require the use of hot works, as this posed too much of a risk to the building, students and staff. Lastly, the thermal performance of the roofs also needed to be upgraded.



Solution:

- Triflex ProTest was specified following calculations done to determine the thickness of the insulation material, ensuring the necessary U-value would be achieved.
- Prior to installation the limestone chippings and vegetation were removed. Fortunately, Triflex solutions are hydrolysis-resistant, so if there were to be issues with standing or ponding water in future it would have no adverse effect on the waterproofing.
- Triflex ProDetail was used to waterproof various details, including upstands, the ballasted photovoltaic panels and the new roof lights which were installed at the same time.
- The exceptionally fast cure times of the PMMA based products, meant that works were carried out efficiently and effectively, during school time while meeting all deadlines.

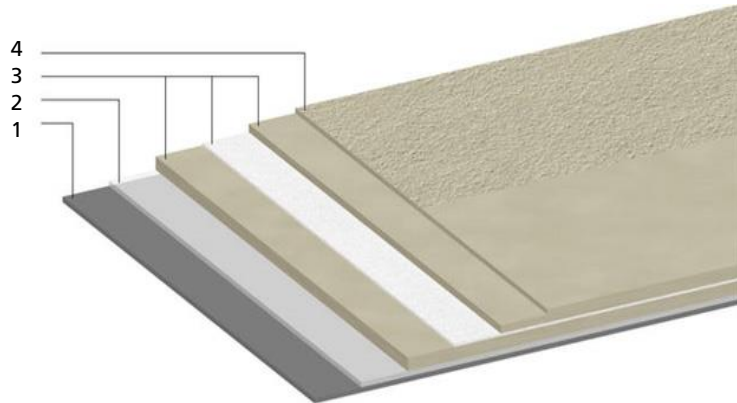


Products used at a glance:

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



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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)