

Case Study

Project/customer name:	Manchester airport carpark
Year of application:	2019
Location/country:	Manchester / UK
Building type:	Carpark
Authorized contractor:	Mike Thelwell Flooring Ltd.
Additional project details:	Meeting strict performance criteria to EN 1504-2

General view:



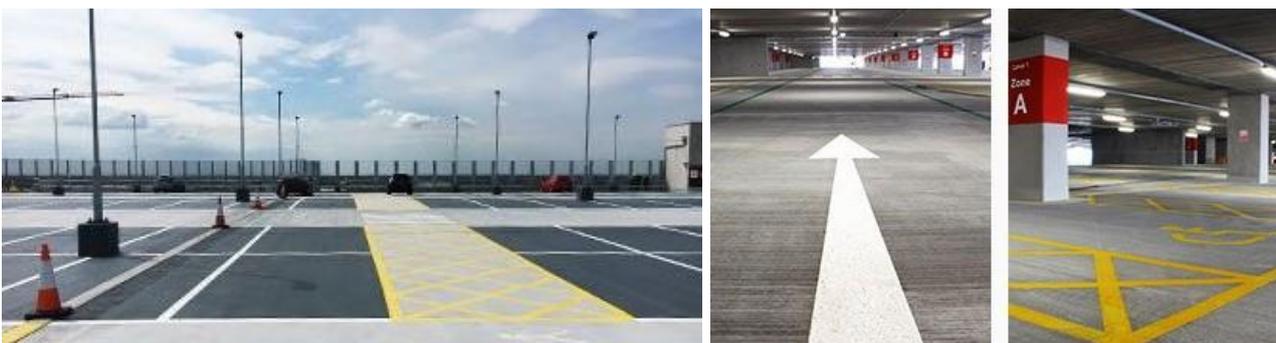
Challenge:

- Due to delays, work on waterproofing for the new car park top deck could not begin until November 2018. This ruled out most cold applied liquid waterproofing systems, especially those based on polyurethane (PUR) due to the expected wet winter weather.
- The specified system also had to meet strict performance criteria to EN 1504-2 so that it would provide a durable waterproofing system, protecting the concrete structure for years to come and a safe durable floor, for the millions of vehicles and pedestrians that will use it every year. As part of these criteria, it had to demonstrate the highest crack bridging technology available to cope with any movement in the structure.
- Lastly, hard-wearing line markings would need to be applied to clearly designate vehicle parking areas, direction of travel and pedestrian walkways for safety.



Solution:

- The Triflex ProPark system meets the necessary EN 1504-2 accreditation and dynamic crack bridging requirements. Based on PMMA technology, the system can be applied at temperatures down to 0°C. This allows the system to be applied in shorter weather windows between rain or snow, maximizing the available installation time. It cures in just one hour allowing it to be over-coated or open to foot traffic quickly, ensuring rapid progress on-site.
- Exposed ramps up to the top deck had emery aggregate added to aid vehicle grip and the parking areas were finished in a darker color to the driving areas to help visually segregate them. Markings were applied using Triflex Preco Line 300 for bays and wayfinding, and Triflex Cold Plastic for line markings, providing a long term and clearly marked solution for parking, traffic direction and pedestrian walkways.

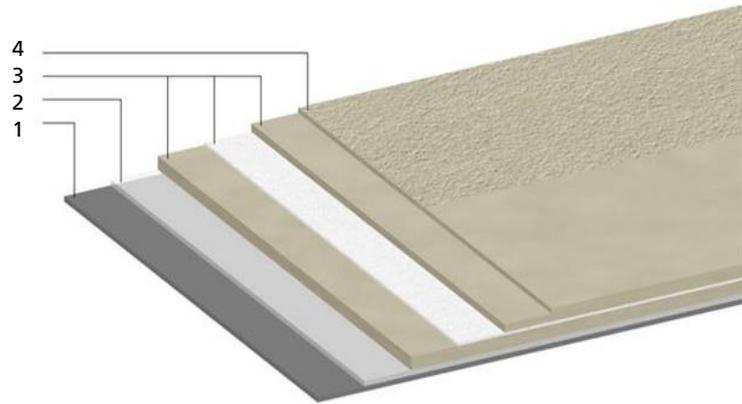


Products used at a glance:

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)