

SECTOR Refurbishment / Residential

CLIENTCambridge City Council

DEVELOPERKeepmoat

ARCHITECT:

ROOF AREA (M2)

220

ACCREDITED CONTRACTOR:

Blue2 Contractors Ltd

STARCOAT® PMMA COLD LIQUID WATERPROOFING USED TO REFURBISH EXISTING WALKWAYS

SYSTEMS USED:

Starcoat PMMA 01, a low odour, rapid cure, flame free, two
component cold-applied liquid waterproofing system. The
Starcoat PMMA system is BBA certified for use on cold, warm
and inverted roofs, living (green) roofs and is approved for zero
fall application.

Starcoat PMMA 01 was applied over an uninsulated lightweight deck previously waterproofed in a resin waterproofing system that had cracked and failed due to incorrect specification. The existing waterproofing system was fully prepared prior to application of Starcoat PMMA 01.

The system assembly included a hard-wearing, self-levelling mortar and anti-slip aggregate designed to withstand heavy traffic and resist any potential damage from pedestrian access. A bespoke coloured sealer was also applied to the waterproofing system to match the existing metal works and colour scheme on the project.

CHALLENGES:

 Axter's technical team completed a roof condition survey and found that the existing system had significant cracking, notably at the joints of the substrate board, which had caused water to penetrate the system. This cracking indicated a lack of suitable flexibility within the resin compound and there were no movement joints to help compensate for this.

Over time, these cracks in the field area would have worsened due to expansion and contraction caused by the changing weather. The ridges would have become more pronounced, leading to greater water ingress, trip hazards and potential injury. There was no drip trim installed to the external edge, so water was able to track under the deck and present as a leak, damaging the soffit below. With residents living in the block and requiring access to the walkways, it was important that the refurbishment works would not impair their movements too greatly, or impact them with noise, hot works and other associated hazards.



SOLUTIONS:

 It was not practical to remove and replace the existing system, so an overlay was essential. The Starcoat PMMA system provided the ideal solution as it has the flexibility to accommodate the walkway movement whilst minimising the impact on the residents.

As the system is rain-proof in approximately 20 minutes and trafficable in around one hour, this meant that the access route could always be maintained and all internal detailing around residents' front doors could be co-ordinated.

As a flame free system, compliance with all NFRC Safe2Torch recommendations was achieved and was essential considering the presence of combustible materials such as doors and frames.

No requirement for gas or heating equipment on site also meant that the level of noise was kept at a minimum, with only a paddle mixer and hand tools being used to complete the installation.

To further limit the potential impact of the works, a low odour system formulation was used.

A metal trim was introduced at the external perimeter, allowing water to run off and preventing any capillary action back under the substrate boards and into the system.

The Axter accredited contractor worked efficiently and to a very high standard to complete the project in under a week, delivering an aesthetically pleasing, effective and robust waterproofing solution.





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