

## Durable Roofing on Show at Telford International Centre

Telford, Shropshire



A Kemperol cold liquid applied waterproofing membrane is being used to provide a long-term solution to wear and tear, reducing the maintenance requirements at event and exhibition venue, Telford International Centre.

The International Centre is one of the UK's larger regional venues and attracts national exhibition, corporate and association business from all over the country.

Owned by Southwater Event Group, the venue offers 15,000 sq m of flexible event space over three event halls and two purpose-built conference and banqueting suites. And The International Centre is right at the heart of the new £250 million Southwater development which has created a thriving convention quarter right outside the front door.

Southwater Event Group has invested over £50 million in the venue and its Group hotels to ensure guests and visitors experience the very best service at all times.

In the latest phase of development, attention has now turned to the roof at The International Centre. The single ply waterproofing membrane has received a number of unsatisfactory repairs over the years. As a result, the decision was made to overlay the single ply roof with a cold liquid-applied membrane as part of a rolling programme of improvements. The first section has now been completed using Kemper System's Kemperol V210.

### Installation Challenges

The first section of roof that has been refurbished has a range of complex details, plant and equipment and features which are characterised by multiple vulnerable laps and seams in the single ply membrane. Having experienced the limitations and failure of the single-ply system, the client's options in terms of utilising alternative systems to adequately waterproof the detail of the ventilation fans, extensive air conditioning plant, multiple upstands and complex valley gutter details all located on a diamond-shaped section of roof, created an additional

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specification and installation challenge. This led to the specification of a liquid waterproofing system that could be cold applied and incorporate not just the most vulnerable areas, but the whole roof, without any of the seams, laps and joints associated with the old system.

### Liquid Flexibility

Roofing contractor Profile Industrial Roofing Services Limited, began by preparing the 800m<sup>2</sup> first phase roof area to ensure the substrate was clean, dry and stable. A primer was then applied to each section and allowed to cure prior to the application of the Kemperol V210 resin. The resin saturates a non-woven polyester reinforcement fleece which is immensely strong and tear resistant, and cures to form a monolithic, seamless membrane that cannot delaminate and bonds directly to the substrate.

Use of a liquid system helped to overcome the unusual diamond shape of the roof because the reinforced liquid resin can be applied to the exact layout of the roof.

On site engineers painstakingly removed individual legs supporting the air conditioning plant, one at a time, so that the Kemperol V210 membrane could be applied underneath the support structures without disturbing the air conditioning and ventilation units. Applying the waterproofing membrane under the details in this way removed the potential for leaks in those areas of the roof where there had been higher levels of failure in the past.



Similarly, use of a liquid applied system also helped to reduce the vulnerability of the valley gutters on the refurbished section of the roof. Once again, failure of the single ply membrane joints had been evident in this area. With a liquid system the exact contours of the valley gutters could be accommodated seamlessly with the Kemperol resin and flexible fleece based waterproofing system.

In areas there was very limited access for application of the waterproofing membrane with just a 15-20mm space for applying the system. Thanks to the wet-on-wet installation process, however, the contractor was able to address this complex detailing with the Kemperol V210 system, creating a seamless return around the roof section perimeter.

## Leak Free Future

As more and more companies focus on future maintenance costs and risk of disruption as part of the business case for selecting a roofing system, the ease of installation, durability, flexibility and seam-free nature of liquid applied systems have become widely recognised for their whole life value.

For a corporate venue like Telford International Centre, however, the importance of remaining leak free is based not only on the cost and disruption of repairs but also on the damage that leaks can cause to the equipment and events within the building. That is why Telford International Centre has begun a new approach to making long-term improvements designed to provide a BBA certified service life for the roof for the next 25 years.