

MYER BUILDING

Launceston TAS, Australia



SYSTEM**ARDEX**
PREMIUM PERFORMANCE

Continuous leaks, numerous failed attempts at remedial work and concrete cancer had left Launceston's tallest building, the Myer Building in Brisbane Street Mall, in a serious state of degradation. Several contractors using a variety of technologies had failed to remedy the problem of the leaking roof membrane and by 2010 the leaks had led to the spread of concrete cancer throughout the top four storeys of the building.

Further complications were the multi-layered finish of waterproofing products left on the roof from previous unsuccessful attempts at fixing the leaks. These included asbestos-filled bitumen torch-on sheets and HDPE membranes. There were also a collection of mobile telephone towers and safety balustrades present that were responsible for a further 220 penetrations of the existing roofing membrane.

Zaganite Specialised Coatings was commissioned to reappraise the building and specify a means of completely and successfully waterproofing the roof. Zaganite specified Ardex **TPO** waterproofing membrane due to its record of achieving 100 per cent success in challenging projects such as RMIT Melbourne and University of NSW, Sydney.

TPO is a high performance waterproofing membrane of thermoplastic polyolefin combining polypropylene and ethylene propylene rubber. The scrim-reinforced membrane combines the durability of rubber with the heat welding properties of a thermoplastic in a flexible sheet. It is hot-air welded to deliver a fully secure, consistent seam quality.

The presence of asbestos within the existing roofing membrane meant its removal was prohibitively expensive while the HDPE membrane was very difficult to bond to – in fact, previous attempts at bonding to the HDPE had failed completely, but the removal of this membrane was impractical.

Unlike almost all competitive waterproofing membranes the **TPO** product could be fastened mechanically and loose laid over the HPDE. Zaganite Specialised Coatings, the applicators, employed a safe work method that ensured the fasteners were able to safely penetrate the asbestos in the bitumen sheet membrane. All penetrations and corners of the 440 square metre roof area were made easier to complete by virtue of the **TPO** pre-formed corners and boots. Zaganite project manager Stuart James said the entire project was facilitated by the supervision and expertise of Ardex Australia's Mark Collins.

Other features of the **TPO** membrane are its ease and speed of installation plus its environmental credentials.

The **TPO** membrane comes in 30 metre sheets, two metres wide and weighs just 1.53kg per square metre. This delivers easier handling than most other waterproofing membranes and a variety of installation options for low slope roofing applications in both refurbishment and new construction projects.

The fact that the membrane offers single ply protection with fast, hot air welded seams delivers a rapid, safe (no naked flames) installation process.

Environmentally the **TPO** waterproofing membrane has some definite advantages – its chlorine-free, non-halogenated and plasticizer-free formulation, in combination with the hot-air welded seaming method, produce no emissions harmful to the environment. The membrane can also be easily recycled and has a lower manufacturing footprint than comparable systems.

A further advantage of the **TPO** is that the white colour of the product creates a heat-reflective index of over 70 per cent – and a high proportion of this index is retained for the lifetime of the membrane due to its colour-fast retention properties.



PROJECT REFERENCE – WATERPROOFING

