

## Case Study

### Reaching for the Parramatta Skyline with RVASS Solution

**Product** Akatherm HDPE with RVASS  
**Developer** Macland Group  
**Builder** PTI Architecture Group  
**Location** Hassall St, Parramatta NSW



#### Project Overview

A challenging high-rise development standing at 138m tall.

#### What are the benefits of using the Akavent system?

The project incorporated an Akatherm HDPE RVASS solution for the waste stacks. Reduced Velocity Aerator Stack Systems (RVASS) deliver the following benefits when compared to traditional systems adapted for high-rise situations:

- No vent pipe required saving both pipe and accessories;
- Less penetrations and fire collars;
- Less labour to install; and
- Reduced, controlled plug velocity ensuring trap integrity & associated air quality while reducing airborne noise.

### How did Akatherm provide a solution?

The Parramatta CBD skyline is truly starting to grow. Featuring 224 apartments the 43 storey, 138m Skyrise residential tower at 11 Hassall Street will stand out in Parramatta's ever-growing city skyline.

At 138m, the Skyrise development posed a real challenge for a traditional full vented modified stack system. The first challenge was the capacity of the system to carry the waste load at peak times without becoming too large. The second related issue was plug velocity given the minimal transitions in the stack which could potentially compromise the trap integrity and therefore hygiene and air quality. The project incorporated Akatherm HDPE RVASS solutions to the stacks to overcome these challenges.

By acoustically lagging the HDPE (high density polyethylene), the minimum performance requirements to maintain acoustic amenity in residential buildings for noise generated by waste pipes (established by the National Construction Code) were satisfied. These requirements vary depending on the location of the waste pipe with pipes located adjacent to habitable rooms (bedrooms, living rooms and the like) requiring a higher rating than those located adjacent to non-habitable rooms such as kitchens and bathrooms.

The end result was an engineered solution to meet the building's requirements while enjoying the added benefits provided by Akatherm HDPE. As it is an extremely durable material with excellent temperature and chemical resistance, HDPE will withstand the rigours associated with use in a tall structure. Furthermore to complete the solution, Akatherm not only reviews and approves the design prior to project commencement; the team also provides on-site training and technical support during the project.

The Parramatta skyline takes shape with the help of Akatherm RVASS solution.