MASTER® BUILDERS SOLUTIONS

PROJECT:
Macquarie Park Data Centre

LOCATION:
Sydney, NSW

COMPLETED:
2013

ARCHITECT:
Greenbox Architecture

CLIENT:
John Holland

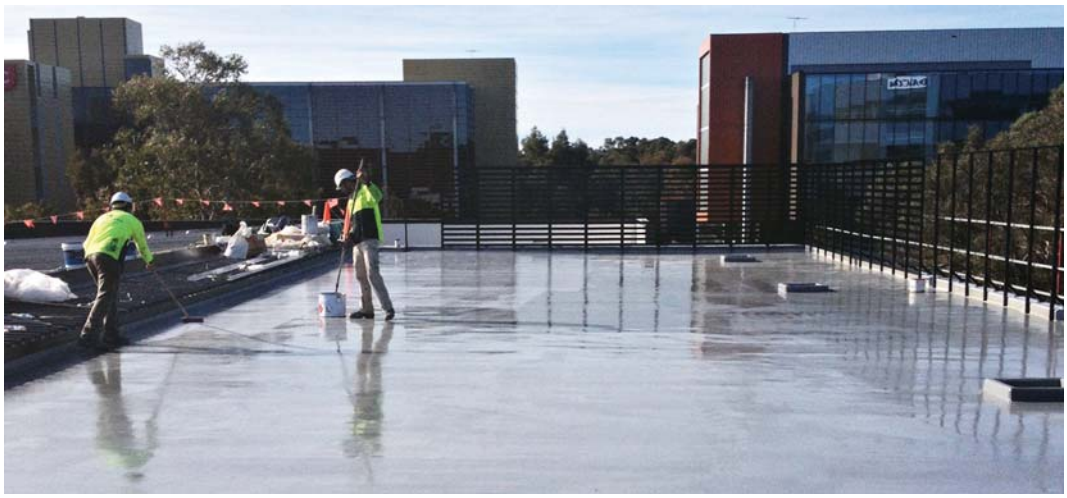
CONTRACTOR:
Sydney Seal Insulation Works Pty Ltd

PRODUCTS USED:
Coniroof® 2160
Concresive® 2525
Conipur® M860
Conipur® TC 459

Project Profile

New Data Centre Signed, Sealed and Delivered - Thanks to Coniroof 2160

Macquarie Telecom Data Centre



BACKGROUND:

Located in Macquarie Park in Sydney's suburban north-west, the new Macquarie Telecom Data Centre will house critical telecommunications and data equipment for a number of Australia's leading telecommunications providers. Purpose-designed by Greenbox Architecture and constructed by John Holland, the multi-storey facility will provide a key piece of infrastructure for Australia's ever-expanding telecommunications network.

Needless to say, when it comes to high-tech data and telecommunications centres such as this, protecting the equipment inside is of paramount importance – especially when it comes to keeping everything dry. Put simply, water and computers or electronic equipment do not go together well. In Data Centres and other high-tech buildings, a leaking roof can spell disaster – ruining equipment, and in more severe cases, rendering the facility totally inoperable.

THE CHALLENGE:

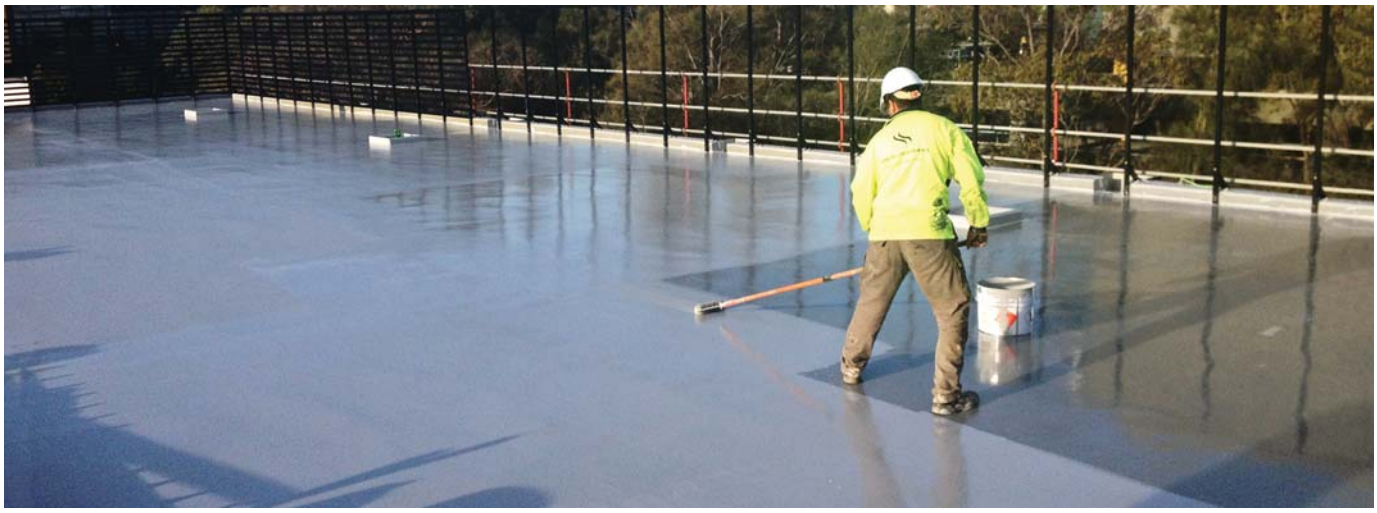
The building's designers needed a reliable high performance waterproofing solution that was up to the task – a solution that could provide critical long-term protection for the Data Centre and its valuable contents.

This task was made all the more challenging by the large amount of equipment and other infrastructure installed on the building's roof. As well as selecting an appropriate waterproofing membrane system, they also need to make sure that the surface preparation and installation was carried out correctly. After all, when waterproofing a building or structure, the quality of the installation is as important as the materials being used.

Ensuring that all sections of the roof – including the areas under and around cooling and other equipment - are treated, is a critical factor in delivering a fully-waterproofed building.

BASF
The Chemical Company

Project Profile: Macquarie Telecom Data Centre



THE SOLUTION:

The solution to this waterproofing challenge came in the form of Coniroof 2160 – a high-performance, heavy-duty waterproofing system from BASF.

Based around BASF's unique Conipur high performance waterproofing membrane technology, the Coniroof 2160 system combines outstanding waterproofing performance, robust durability and high quality aesthetics in a trafficable, fully-bonded, monolithic system.

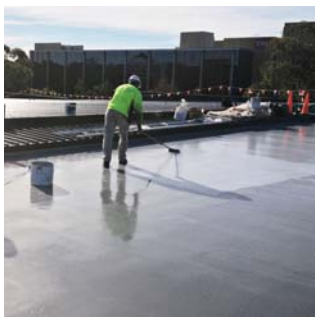
The Coniroof 2160 system incorporates three key components. The first, Concresive 2525, is a solvent free epoxy binder and structural adhesive which forms the base / primer layer of the Coniroof 2160 system. For the Macquarie Park project, this layer was applied with a sand cast to provide an R11 slip-resistant finish.

This is followed by a 2mm thick trowel application of Conipur M860 - a solvent free, two-component, self-levelling, polyurethane based, elastomeric coating – and finally, a roller-applied layer of Conipur TC 459 top coat.

Together, these three components provide a high performance system that combines outstanding crack-bridging capabilities with a robust trafficable surface to deliver a seamless, reliable waterproofing membrane.

Chadi Al Hakim, Projects Manager with specialist waterproofing and surface coating contractor Sydney Seal Insulation Works Pty Ltd, commented: "When it comes to waterproofing buildings – especially high-tech buildings such as this – it has to be done right. Even the smallest leak can spell disaster."

"Coniroof 2160 provides the ideal waterproofing for facilities such as these. It's robust and reliable, and it delivers the long-term waterproofing protection that's needed to ensure that the facility remains functional for many years to come," he added.



To ensure that all sections of the roof – including the areas under and around cooling and other equipment – were fully waterproofed, the Coniroof 2160 waterproofing application was completed as a three-stage process, carried out before, during and after the air-conditioning and other equipment was installed.

Following a total shot blast of the roof and preparation of all vertical surfaces with a diamond head grinding profiler, Coniroof was applied to the areas where the concrete plinths for the air-conditioning units and other equipment were to be constructed.

With the concrete plinths constructed, Coniroof was applied to the top and sides of the plinths prior to the installation of the equipment. The final stage, which incorporated an application of Coniroof across the entire roof area, was completed once all of the roof top equipment had been installed.

"This three-stage application enabled us to achieve total waterproofing protection across the entire roof area, including the areas underneath the plinth structures. Everyone is extremely pleased with the results," Chadi Al Hakim said.

PROJECT FACTS:

- Coniroof 2160 applied to two roof sections
- Total area approx. 3,000m^2
- 3-stage application to cater for the installation of air conditioning and other rooftop equipment

BENEFITS:

- Total waterproofing protection
- Trafficable membrane
- High quality, long-term performance

MORE INFORMATION:

For further information or assistance, please contact your local BASF Technical Representative

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