

## Project Profile

# La Trobe University, Institute for Molecular Sciences (LIMS)

*Colourful angular components frame the windows, inspired from the molecular research being undertaken within the building create a colourful and vibrant cellular-like façade*

One limitation of the powder coating industry is rarely getting to see how the finished powder coat product fits in with the overall result of a project.

Jobs come and go daily, but some truly stand out as the building emerges and takes shape. That is when our efforts and attention to detail shines. The La Trobe Institute for Molecular Science (LIMS) in Melbourne is one such project for Aluminium Industries (Ai).

The La Trobe Institute for Molecular Science (LIMS) is a research centre and a world-class facility for molecular science, biotechnology and nanotechnology research, teaching and learning. The six storey facility provides approximately 2700m<sup>2</sup> of learning space. Construction began in March 2011 and was completed in January 2013. The building officially opened in April 2012.

Ai was commissioned by Seelite Windows & Doors to powder coat all the framing and accessories for the project, adaptors, flashings and custom trims, etc. The colours chosen were Dulux Duratec Zeus Lunar Eclipse

and Zeus Black Matt.

The window framing system used Ai's range of thermally broken window frames, U-MAX™, and the achieved a 5-star Green Design Star rating. Some of the U-MAX™ sections were produced specifically for the LIMS project.

Ai Powder Coat line, as an approved Dulux Applicator, followed all Quality Control procedures required to apply warranted powder. Our pre-treatment process uses a dip system (tanks) by loading the job into special baskets and taking them through the process, etch acid, rinse tanks, chromate, rinse tanks and then the final rinse in deionized (DI) water. The aluminium was then dried for approximately an hour before being loaded on to the powder coat line for painting.

As the project requirements varied significantly over the length of the job, it was painted in-house using our modern, advanced GEMA Automatic and Manual painting systems. The product was then passed through our oven and cured to the powder supplier's specifications.

A specific temperature must be reached and the product held at that temperature for a certain time, which varies on different product size, powder type and oven temperature settings.

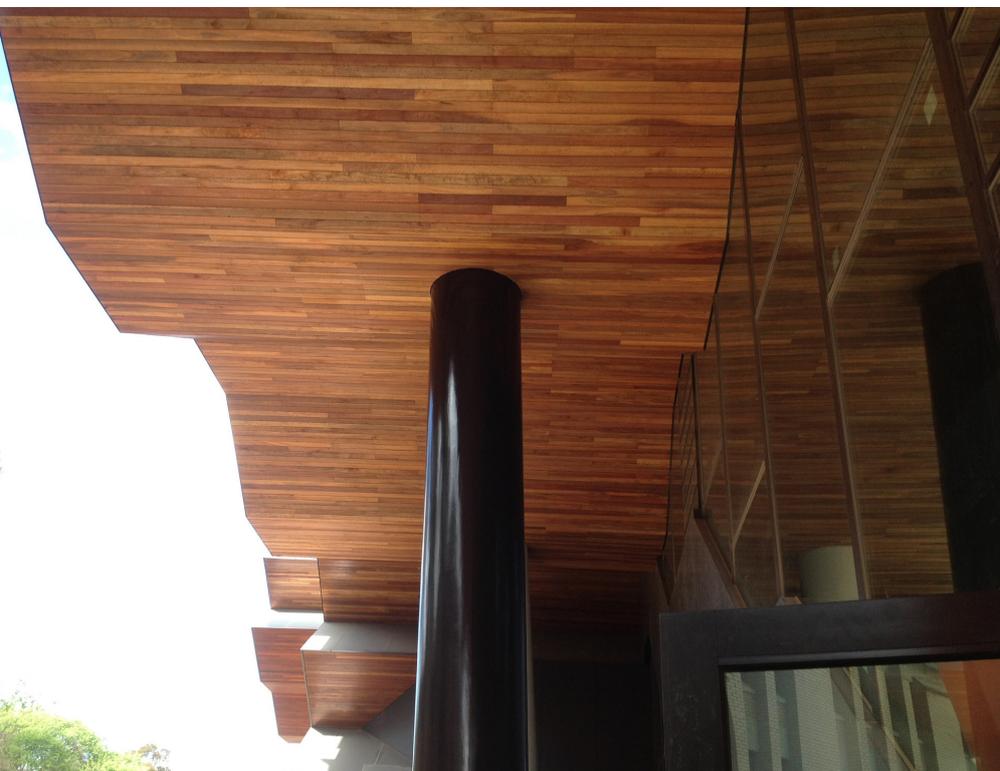
As the aluminium was unloaded off the paint line and packaged, it was checked for quality and finish. A sample was taken of the finished product and passed through numerous and stringent warranty testing procedures, then stored for future reference, as per Dulux Warranty specifications.

The team at Ai is very proud of the high quality standards they set and the product they paint and produce. After the product was carefully packaged by interleaving paper between each piece for protection during transport, it was delivered to Seelite's factory in Hallam, and cut up and prepared for assembly into the various windows and doors.

The black window frames look fantastic surrounded by vibrant colours. Windows are a major feature of the design and function of the building. They invite students and the public to walk through the facility and see research scientists in action. The end result combines form, function and sustainability.

Lyons Architecture won the design contract in a selective entry competition and Watpac Construction was awarded the construct contract. The Bundoora campus complex was designed to meet the school's long-term needs in terms of student learning and research in the science disciplines. It includes new teaching and research laboratories, as well as a 200 seat auditorium and connection works to adjoining buildings.

Lyons created a cellular-like façade on the building, where colourful angular components frame the windows. Towards the centre of the building three of these components are outfitted with





wood, and shoot out from the building to create an eye-catching effect. The 'cells' were prefabricated off site and craned into location. They were inspired from the molecular research being undertaken within the building.

Massive structural columns were integrated into the design by covering them with bright colours, then angling the columns to create huge X's throughout the building.

The result was a playful, vibrant aesthetic. Inside, researchers are able to conduct work in spaces full of a medley of vibrant colours, with an overflowing amount of natural light that

filters in from the over-sized custom windows

The walls are primarily precast concrete, with the cells providing a 'lower' and 'upper' window into the various spaces, aiding the penetration of daylight. The cellular concept creates a framework for instinctive spaces for students to occupy or for research staff to meet and collaborate.

The iconic design sought to transform the identity of the campus, which had previously been built within the strict guidelines for materials and heights. Building materials and project design reflect the forward-thinking being done

within the building.

The structure creates opportunities for study, research, experimentation and collaboration. The unique windows invite the world in to see the research happening and engage with science. The Ai team is proud to have played a role in seeing the design vision of LIMS realized.

Dominic Caia Powdercoat Manager

