



Polycarbonate was used for an extension to a terrace in Newtown, Sydney. Photo Brett Boardman

Seeing the light through walls of polycarbonate

Lightweight and translucent, polycarbonate has made the transition from an industrial material to a domestic one.

Polycarbonate was originally used for industrial sheds. Quick to erect, the lightweight walls provided an economical solution to storage needs.

However, in more recent times, architects have used this translucent material to create both light and privacy.

"It has to be the right application," says architect Clare McAllister, a director of Neometro Architects.

"It's an industrial material that needs to be detailed in the right way for domestic purposes."

Neometro Architects used polycarbonate in a boutique apartment in South Melbourne.

Originally a warehouse to store potatoes, the 1960s building was converted into two- and three-bedroom apartments.

The architects removed the building's northern facade and

inserted large windows, doors and balconies. They also included two stairwells that are exposed to the street. To create privacy and allow light to permeate, Neometro used a corrugated polycarbonate to enclose the stairwells.

"The polycarbonate offers a wonderful diffused light. And at night, the stairwells glow like lanterns," says McAllister, who was keen to define both entry points to the seven apartments.

The fluorescent lighting in each stairwell is hung as a pendant.

"It has quite a Japanese feel," she adds.

While Neometro could have used frosted glass for the stairwells, they preferred using polycarbonate.

"Visually, polycarbonate is softer. It looks like rice paper. Glass is glossier, with a harder finish," says McAllister, who chose

a polycarbonate that was fire retardant, essential for stairwells.

Lahz-Nimmo Architects also used polycarbonate for a house in Newtown, Sydney.

The double block contained a two-storey Victorian terrace; the owners wanted to extend the home in a contemporary way.

Alongside the terrace is now a two-storey polycarbonate box, externally clad with timber battens.

"We've kept the new wing in the same scale as the original home," says architect Annabel Lahz. "But the materials are quite different."

The new wing contains a kitchen, living and dining area downstairs, and a studio on the first floor. Like a suitcase, the new wing can be opened up quickly by a garage-style door.

Lahz-Nimmo Architects chose a flat polycarbonate with a cellular structure.

"It's been sealed, but there's an air gap in the material to allow it to breathe," says Lahz.

"It's similar to honeycomb."

The polycarbonate offers privacy from the street, but still allows a sense of movement from within the home.

"You don't have to put up blinds. And the natural light has a special quality," says Lahz.

Stoughton Architects also used a flat polycarbonate for an interior fit-out to an apartment in Flinders Lane, Melbourne.

Designed for a couple, the 85-square-metre apartment features an open-plan kitchen, living and dining area, one bedroom and a bathroom.

"Our clients wanted an open-plan arrangement," says architect Stephen Stoughton.

"They didn't want to feel enclosed, even in the bedroom."

Stoughton Architects used polycarbonate as though it was a piece of joinery. Enclosing two sides of the bedroom, the polycarbonate walls are framed with shelves on either side.

In the bedroom, a shelving unit provides storage for clothing and objects. And on the kitchen side are open shelves with crockery and cooking utensils.

"When the bedroom light is on, the entire apartment glows. It's quite ethereal," says Stoughton.

He also appreciates the flexibility of polycarbonate and, in particular, its ease of application.

"You can cut very precisely. This one is only 10 mm thick," he says.

And although the bedroom has an external window, additional light comes into the bedroom from the living areas.

"You rarely need to put on a light during the day," says Stoughton.



Clockwise from above: Polycarbonate was used for an interior fit-out in Melbourne by Stoughton Architects; by Lahz-Nimmo Architects to extend a terrace in Newtown, Sydney; and by Neometro Architects in a South Melbourne boutique apartment. Photos courtesy Shannon McGrath, Brett Boardman and Chris Ott

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