APPLICATION OF NEG ARG FIBRE

NEG ARG Fibre, manufactured by Nippon Electric Glass Co., Ltd., is used throughout the world as a reinforcement for cement composites, including asbestos replacement products.

GRC Panels Help Speed Up Construction of High-Rise — Parklane Apartments in Wellington
ON A TINY SITE in downtown Wellington, an 18-storey apartment building has gone up in a superfast 16 weeks. This includes everything from piling to finish painting and cladding. And all it took was just six men on site. The use of GRC panels for the cladding played a major part in the achievement.

The size of the site and its narrow frontage onto a busy inner city street dictated the form of construction. A small crane had to be used to avoid any illegal intrusion into the airspace of the adjacent building. Hence the need for lightweight panels which could be lifted by a small crane.

Modular design and construction processes were developed that simplified panel production and standardised frames. Key to reducing the on-site time was the careful planning, which took longer than the actual construction.

The building consists of a steel frame clad in GRC panels with precast concrete floor slabs and steel fibre reinforced concrete topping. The floor area is 240m² per level. Glazed windows were installed and sealed at the precaster’s yard, and panels received an undercoat and first coat of paint before arriving on site. Spanners and wrenches were then used to bolt and fix the panels into position on the building.

Unnecessary scaffolding and craneage charges were eliminated, and the requirements of other trades did not have to be accommodated, resulting in significant advantages in cost and time, as well as quality.

The mould manufacturer can create intricate patterns and shapes, to give a wide range of options for architects. Strescrete incorporated deep reveals and chases within the GRC panels to create shade lines to break up the smooth expansive surface. The finish quality far exceeded code requirements, and minimal preparation was needed prior to painting.

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**Parklane Apartments**

**Location:** Wellington, New Zealand  
**Architect:** CDC Architects, Wellington  
**Engineer:** Connell Wagner, Wellington  
**Builder:** Hartner Construction Ltd, Wellington  
**GRC Manufacturer:** Strescrete, Otaki, New Zealand  
**GRC panel size:** up to 5m x 3m  
**Number of panels:** 247  
**Panel weight:** 620kg/panel  
**Transport:** one truck load per floor  
**GRC rate of erection:** one floor every two days