APPLICATION OF NEG ARG FIBRE

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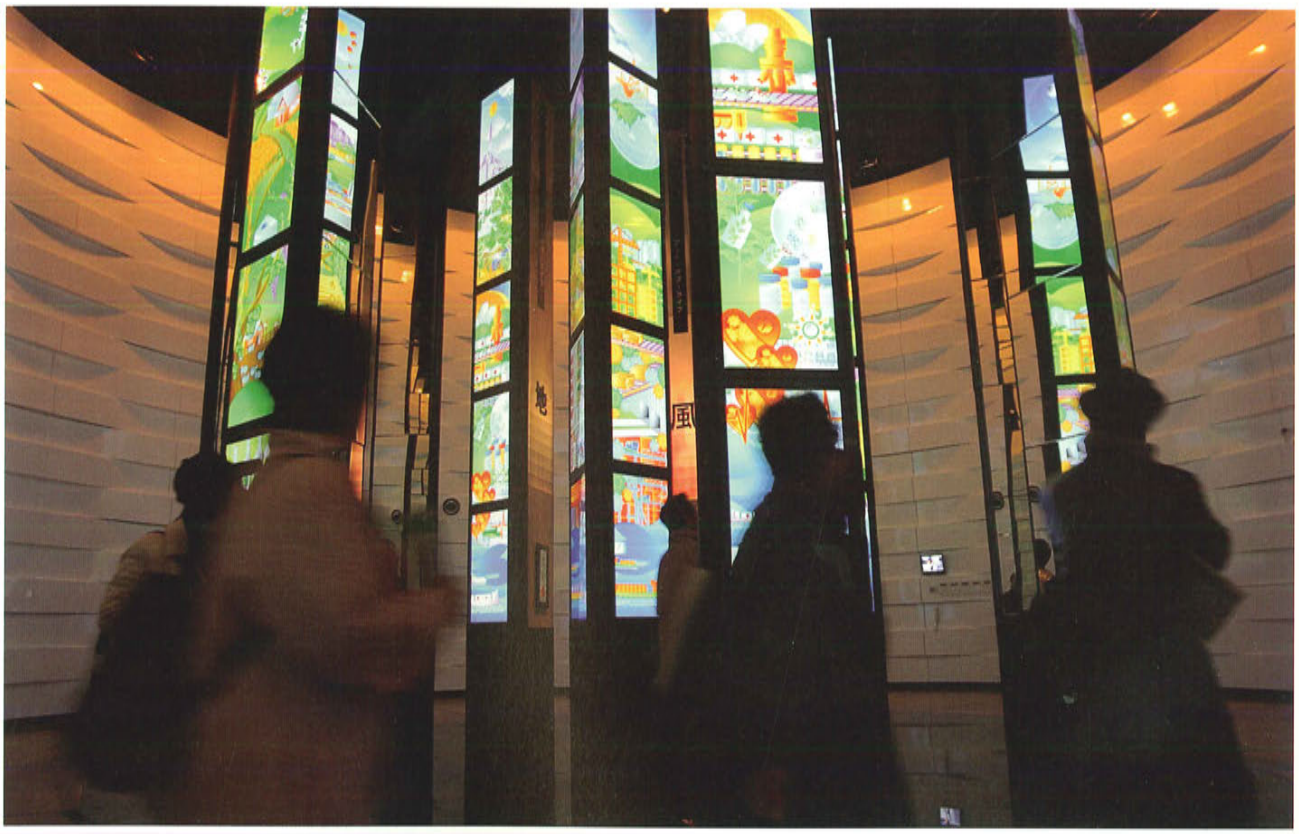
Nippon Electric Glass

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 PROVIDES SPECTACULAR BACK-DROP TO THE AUSTRALIAN PAVILION —WORLD EXPO 2005— AICHI, JAPAN



Glenn Industries Pty Ltd was approached by a Melbourne based Architectural firm, Studio 505, to provide an "outside the square" approach to the design and development of the interior wall panels for the Auditorium display in the Australian Pavilion at the 2005 World Expo in Japan.

Glenn Industries developed a close working relationship with the Studio 505 team, and was able to gain intrinsic understanding of the detail and project requirements to ensure the material and construction methodology met Japan's stringent building standards.

To meet the Japanese Building Code, GRC was required to -

- Conform to strict fire rating requirements
- Meet stringent earthquake design / safety standards
- Provide good acoustical capabilities
- Demonstrate proven structural / engineering qualities

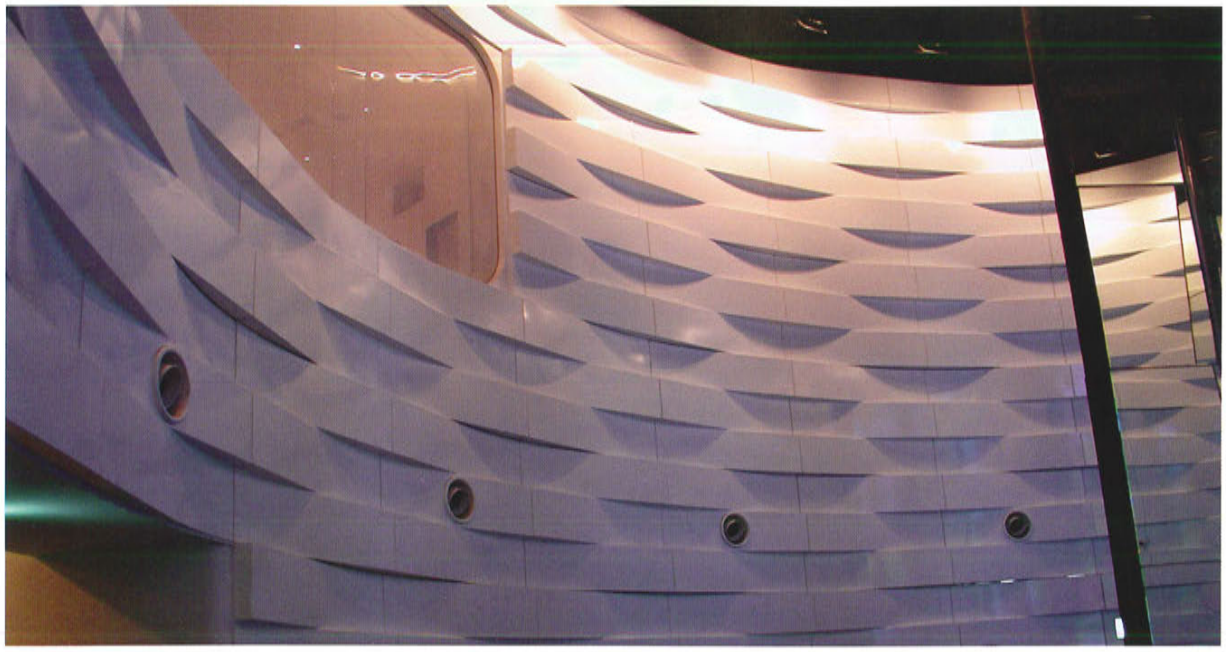
GRC manufactured by Glenn Industries met all the project requirements and was subsequently specified for the wall panels, and a GRC dry mix product manufactured by Glenn Industries was specified for the "skin" application on a 6 metre long 3 metre high 3-dimensional Platypus, an Australian native animal.

THE AUDITORIUM WALLS

GRC Panels were produced by spray process using Alkali Resistant Glass Fibre from Nippon Electric Glass Co., Ltd., providing Studio 505 of Melbourne, Victoria, with the design solution which not only met the Australian Government's brief and cost restraints, but satisfied their design criteria by providing –

1. A mouldable material capable of being produced as a 3-dimensional shape, curved, and of exacting detail
2. A modular system capable of repetitive production with exacting dimensions
3. Speed of erection on site
4. Product stability
5. Lightweight
6. Integral concealed fixing system
7. High gloss, automotive type surface finish with excellent scratch resistance
8. Exported overseas without risk of damage

Glenn Industries' design team, in conjunction with Studio 505, produced a GRC panel with an integrally cast concealed fixing system fixed to vertical steel studs common to adjacent panels at the joints. The steel studs were designed independently of the supporting steel structure, and easily erected on site.



GRC panels, pre-finished to automotive standard, were containerised and transported from the Port of Adelaide to Japan.

Glenn Industries' technical director, Tony Grosset, who was responsible for the design system, explained the unique density of GRC matrix prepared by Glenn Industries, enabling the automotive quality of finish with fluoro-polymer surface coating system.

This provided the spectacular circular "basket weave" style auditorium with integrated door openings and television screens. The apertures were detailed on the production drawings with special size panels being factory produced.

THE PLATYPUS

The Platypus, some 6 metres long and 3 metres high, was the central figure of the Australian Exhibition.

The dry-mix Glass Reinforced Cement render, produced in 20 kg bags, provided the artisans with a medium which was easily sculpted to produce the exacting detail. The render produces a structural skin which is fire resistant, tough, and easily decorated to provide realism.

The render was simply hand-mixed and hand applied to the wire framework to reveal the shape, form and expression of the Platypus.

The Auditorium and the Platypus, the Australian Pavilion of World Expo 2005

Location : Aichi, Japan
Design : Studio 505
Manufacturer : Glenn Industries Pty Ltd (Australia)
Completion : March 2005

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