

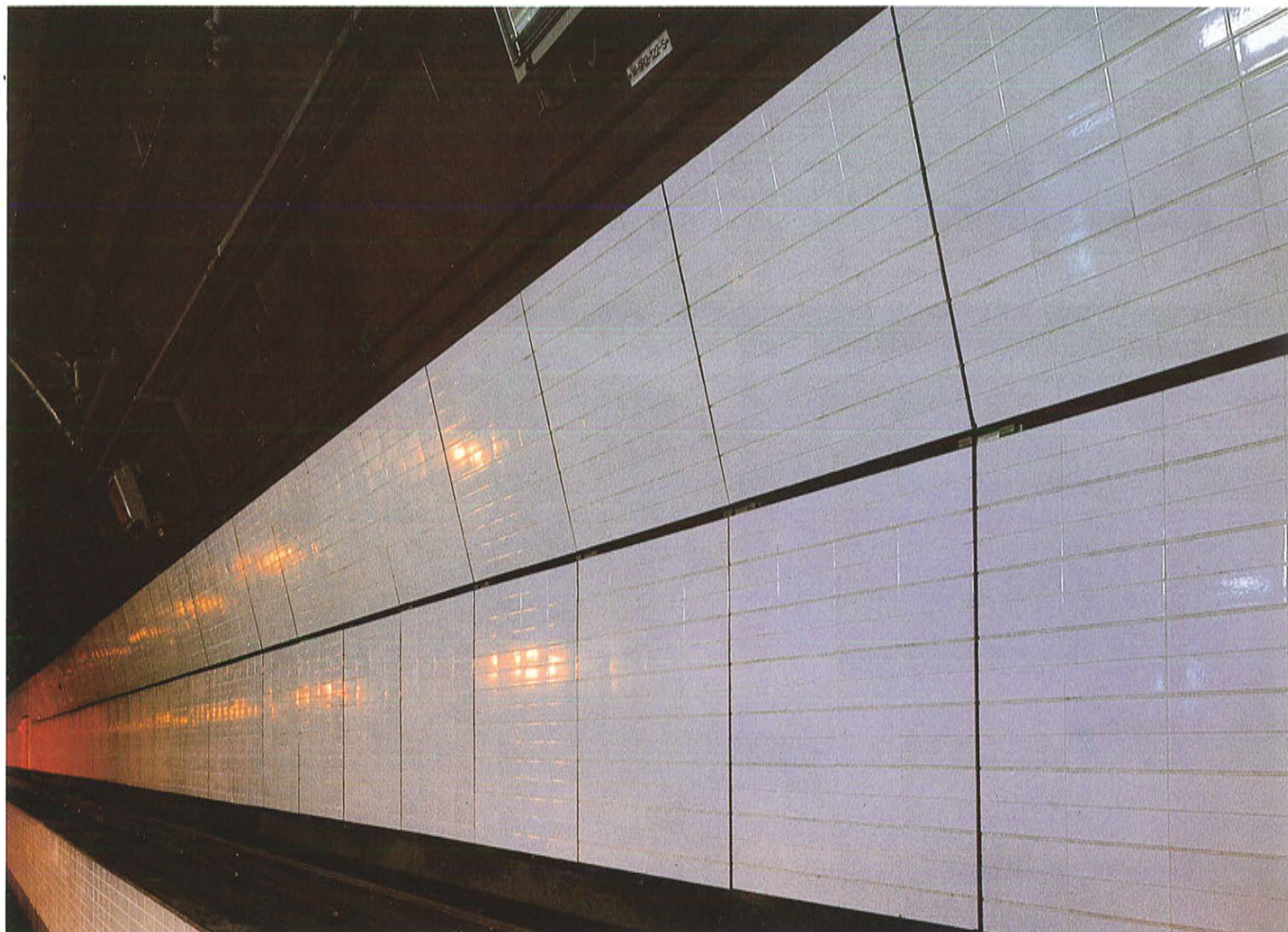
# APPLICATION OF NEG ARG FIBRE

Ref. No. 004 NOV. 1991



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.

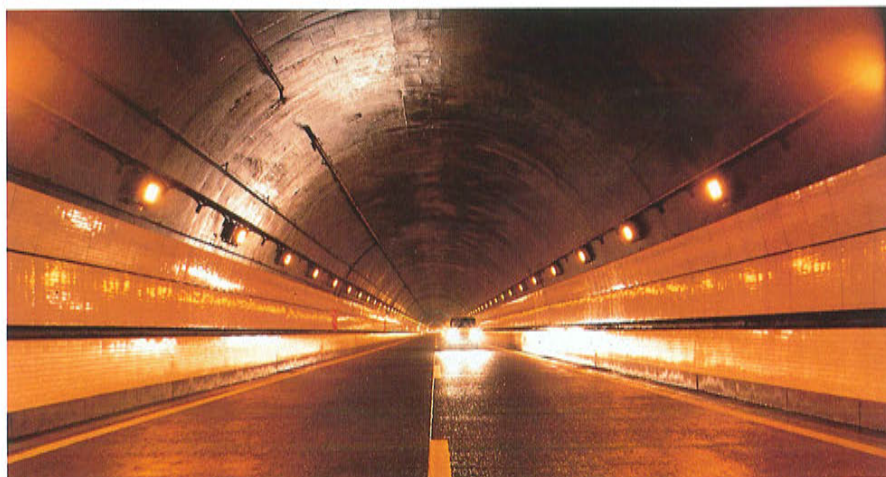
## GRC Finishing Plate for Tunnel



Long road tunnels in Japan are finished internally with panels to make the tunnel brighter in order to prevent road accidents. However, exhaust gas from vehicles in the tunnel soon dirties the panels. With conventional panels, regular washing is not enough to get the panels back to a pristine state. For this reason, research has been concentrated on materials that need only to be washed to make them as clean and bright before.

Horyo Co., Ltd. acts as a subcontractor to the Japan Highway Public Corporation for installing tile panels on the walls of access routes used by the tunnel supervision staff.

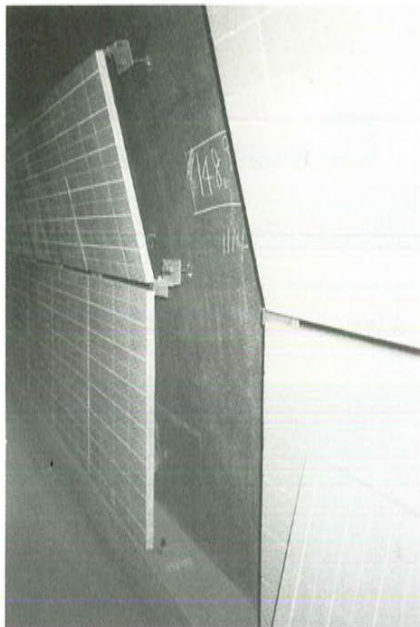
Because of the problems described, we have fulfilled the contract using special



**Kanetsu Expressway Kanetsu Tunnel Phase II  
(Southbound Carriageway)**

Customer: Japan Highway Public Corporation  
Design and Installation of GRC: Horyo Co., Ltd.  
Date Completed: August, 1991





PC tile panels (C-type HAI panels) developed in-house.

Three years ago, we were introduced to the GRC-CGC by Nippon Electric Glass (NEG), and were extremely interested because of its excellent dimensional stability. The GRC-CGC enables the pre-tiling feature of PC to be utilized, and simultaneously allows the panels to be made lighter. We obtained the cooperation of NEG to make prototypes for a series of experiments. We discovered that the product was every bit as good as we had expected.

We immediately promoted these GRC-CGC panels (G-type HAI panels) to Japan Highway Public Corporation and other interested parties. At the same time we continued with proto-

types and experiments in conjunction with the GRC manufacturer, preparing for full-scale manufacture.

We started using the GRC-CGC panels in practical applications in the summer of 1990, beginning with the Yokosuka National Highway Tunnel (650m<sup>2</sup>) and the Tokyo-Nagoya Expressway Shin-tsuburaya Tunnel (3,000m<sup>2</sup>). It is also applied to the Kanetsu Tunnel, whose total length is 10,926m, in its Phase II construction (12,000m<sup>2</sup>).

The G-type HAI panels are durable enough for long-term use, therefore cost-effective material, and are much appreciated for their attractive appearance.

We are scheduled to participate in many big projects, and intend to actively extend the use of GRC-CGC panels.

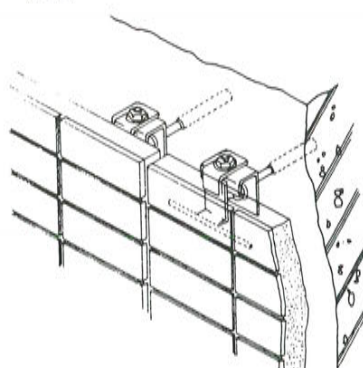
(Hironobu Kawaguchi, Horyo Co., Ltd.)



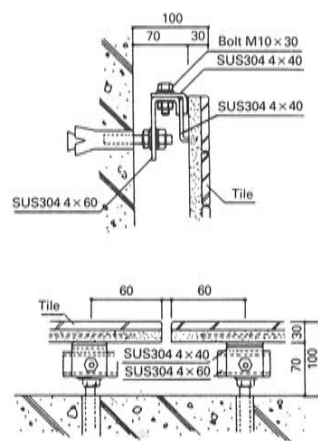
#### • Installation Detail

Iso. View

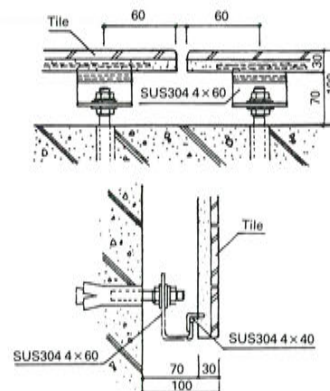
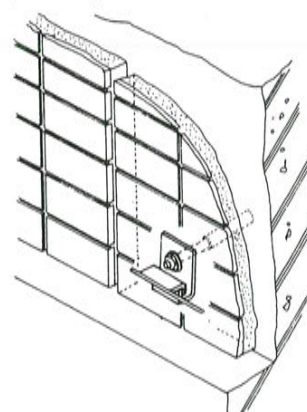
(Top)



Section



(Bottom)



Unit: mm

 **Nippon Electric Glass Co., Ltd.**

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