

#### 4. Development of FRP panels Corrosion Protection Method and Practical Applications

##### - Concrete Lining Corrosion Protection Method -

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Concrete structures of sewerage facilities are demanded to have improved corrosion protection performances to facilitate their maintenance, and utilization of new corrosion resistant materials is viewed as a promising technology. The FRP panels corrosion protection method involves use of new materials that are highly resistant against sulfuric acid produced from hydrogen sulfide at sewerage facilities. The method is a sheet lining method and can be implemented for new construction (embedding panels) and repairing (coating). FRP panels are composed of substrates consisting of glass roving surrounded by E glass continuous strand mats and vinyl ester resin.

The method is characterized by high corrosion protection performance, low cost and high workability, and has been developed jointly by the Public Works Research Institute, Okumura Corporation and Fukui Fibertech Co., Ltd. and obtained a construction technology certificate of the Japan Institute of Wastewater Engineering Technology.

**Key words** : FRP panels corrosion protection method, sheet lining method, sewerage facilities, concrete, maintenance