KISHI LAB.

[Crack Self-healing Concrete & Quality Assessment Technology on the Surface Concrete]

Department of Human & Social Systems

http://wdnsword.iis.u-tokyo.ac.jp/index_e.shtml

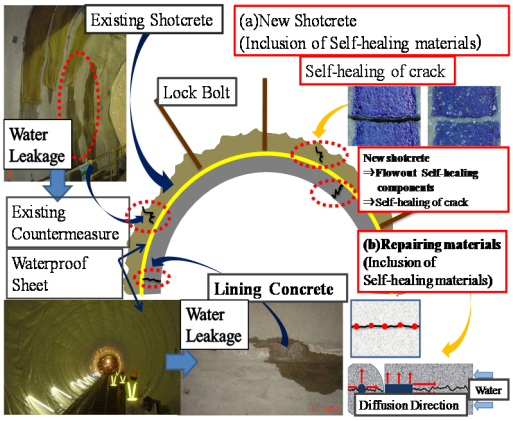
Concrete & Recycling Engineering

Dept.of Civil Eng.

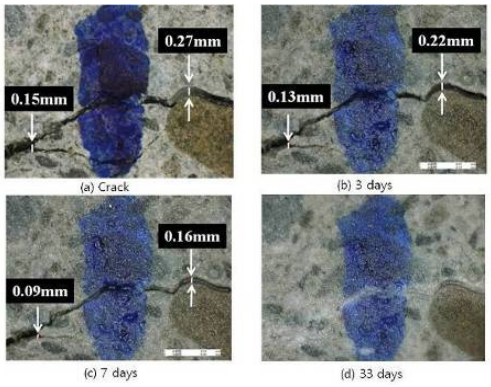
• What is the Crack Self-healing Concrete?

This concept is one of the maintenance-free methods which, apart from saving direct costs for maintenance and repair, reduces the indirect costs – a saving generally welcomed by contractors.

- ◆ **Application of self-healing technology to various civil infrastructures**
- ◆ **Investigation of durability and quality assessment on the surface concrete**
- ◆ **A study on the relationship between micro pore structure and mass transfer in cementitious material using micro/ nano technology**
- ◆ **Thermal stress relaxation by hybrid use between expansive additive and light weight aggregate （using Thermal Stress Testing Machine）**

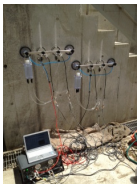


Application of self-healing concrete for water leakage of underground infrastructures as tunnels



Self-healing process of self-healing concrete

Concrete canoe competition
(Made of self-healing concrete)

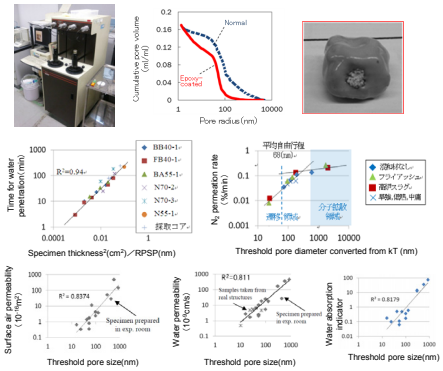


Surface Water Absorption test （SWAT）

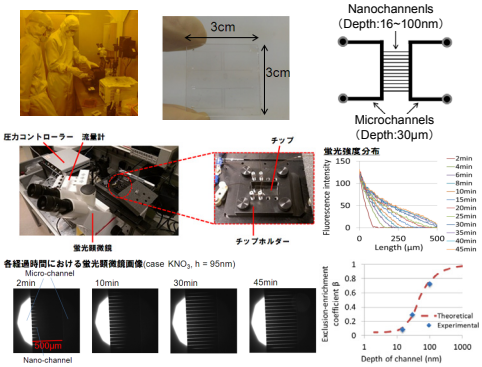
Surface air permeability test (Torrent method)

Repeated water flow test

Evaluation of concrete surface quality



Threshold pore size of specimen extracted with epoxy-putty coating and relationship with various mass transport resistance



Mass transport in micro/nano channel

Under the guidance of Hibara lab. In 4th division (now in Tokyo Institute of Technology) and Prof. Eijkel in Twehte university