

PermeaCon

برمياكون (خرسانة مسامية)

Porous concrete paving

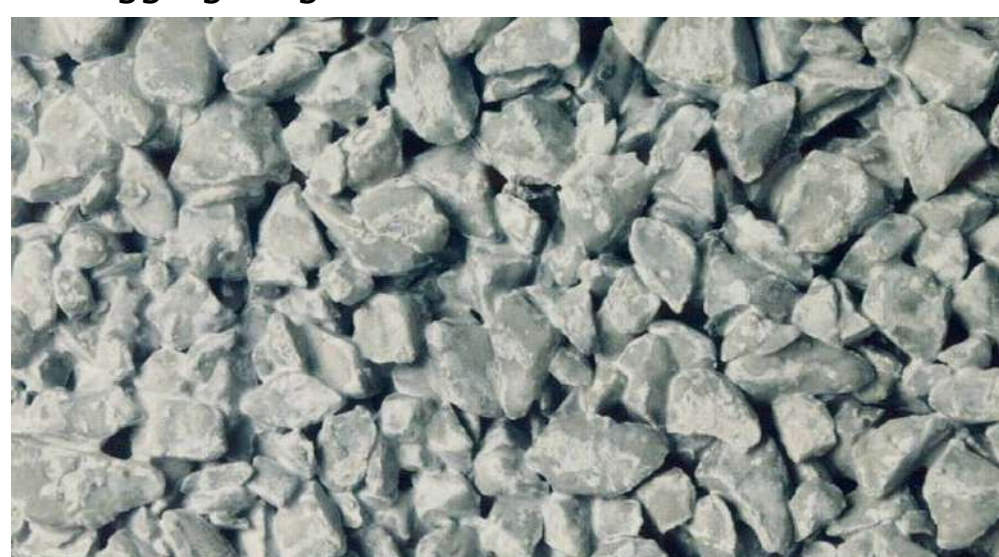
PermeaCon is a cast-in-place concrete paving product with water and air permeability and a fully pavement-grade load-bearing strength. Rainwater will permeate through PermeaCon and down into the soil, thus going back into the environment.

Features

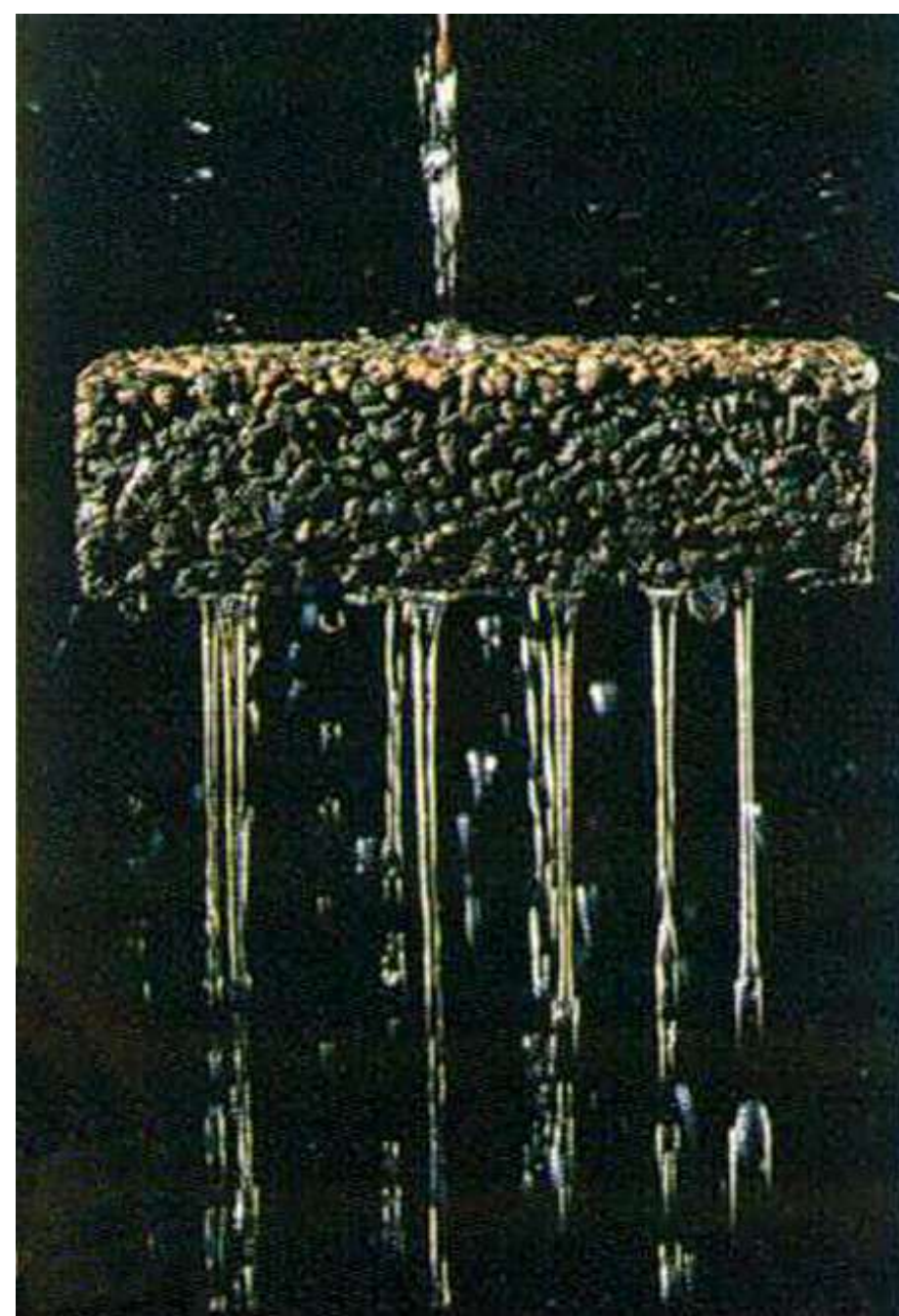
- ◆ The combination of excellent permeability and good water retention and infiltration capacity contributes to water management benefits including rainwater outflow reduction and groundwater conservation.
- ◆ The surface temperature of PermeaCon is 5°C to 8°C lower than that of asphalt pavement. The heat reduction effect becomes even greater after rainfall with the use of the latent heat of vaporization of the rainwater, efficiently alleviating the urban heat island effect.



▲ **Medium grain**
aggregate grain diameter 2.5 to 5 mm



▲ **Large grain**
aggregate grain diameter 5 to 13 mm



Joetsu City Aquarium "Umigatari" - Niigata



Mizu no Hiroba Park - Tokyo

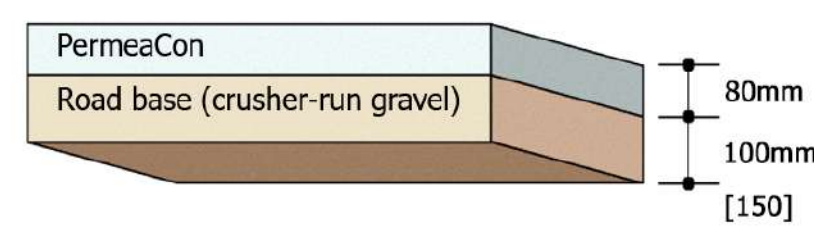
Paving thickness by application

Sidewalk type

Condition: Open to pedestrians and bicycle users only

Applications: Sidewalk, bicycle lane, garden lane, public square

Water retention/infiltration capacity: 26 mm [31 mm]

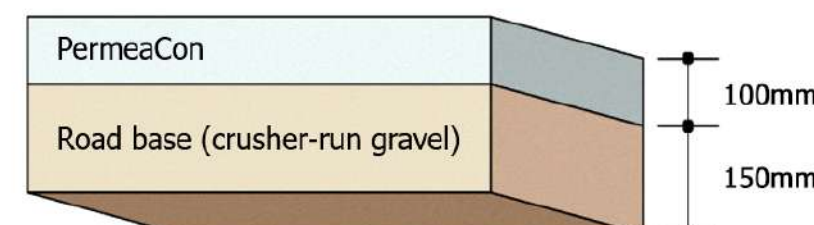


Parking type (I)

Condition: Passenger car use

Applications: Parking facilities, building exterior

Water retention/infiltration capacity: 35 mm

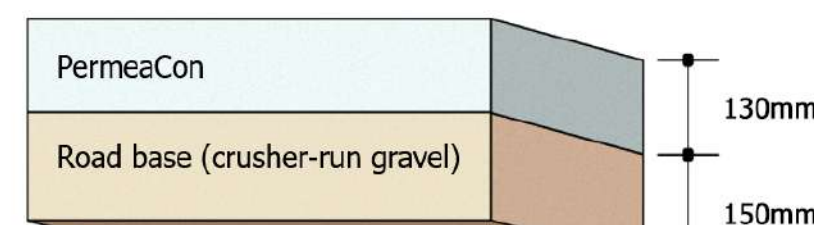


Building exterior type (for emergency vehicle traffic)

Condition: Passenger cars and emergency vehicles

Applications: Building exterior, parking facilities

Water retention/infiltration capacity: 41 mm



※ The water retention/infiltration capacities shown are based on a road bed soil infiltration coefficient of 1 x 10 to 5 cm/sec.
 ※ Based on a design CBR of 3% or over. ※ Consult us for requirements other than the above.



“Re-Tansui” system

(نظام تغلغل وتخزين مياه الأمطار)
نظام ري تانسوي

Rainwater retention and infiltration treatment system

Plastic components optimized for rainwater retention and infiltration allows a rainwater outflow control facility to be completed in a short work period and at reduced installation cost.

Features

◆ Highest strength

Bears the loading of the traffic and lifting operation of 50-ton mobile cranes. Is suitable as a traffic lane or parking strip for large transportation vehicles (T-25).

※Specific conditions apply to usage. Contact us for information.

◆ Excellent earthquake resistance

Withstands level 2 and equivalent earthquake activities (equivalent to the Great Hanshin Awaji Earthquake etc.)

◆ Water retention bath can be visually inspected.

Water level and sand accumulation inside the bath can be viewed through the inspection hole.

◆ Sand entering the bath can be efficiently collected or discharged.

The soil-capturing water infiltration wall system installed as part of the bath allows incoming soil and sand to be dependably discharged.

◆ Reduced cost

Transportation and assembly can be completed in a short time with small labor, contributing to the reduction in work time and installation cost.

◆ Damage compensation insurance is included in the purchase cost

A third-party liability insurance is included in the product purchase price. Damage arising from any accident that has occurred after the Re-Tansui System is put into service and is attributable to a Re-Tansui System defect will be compensated for according to the insurance policy.



Single AE-1, assembled



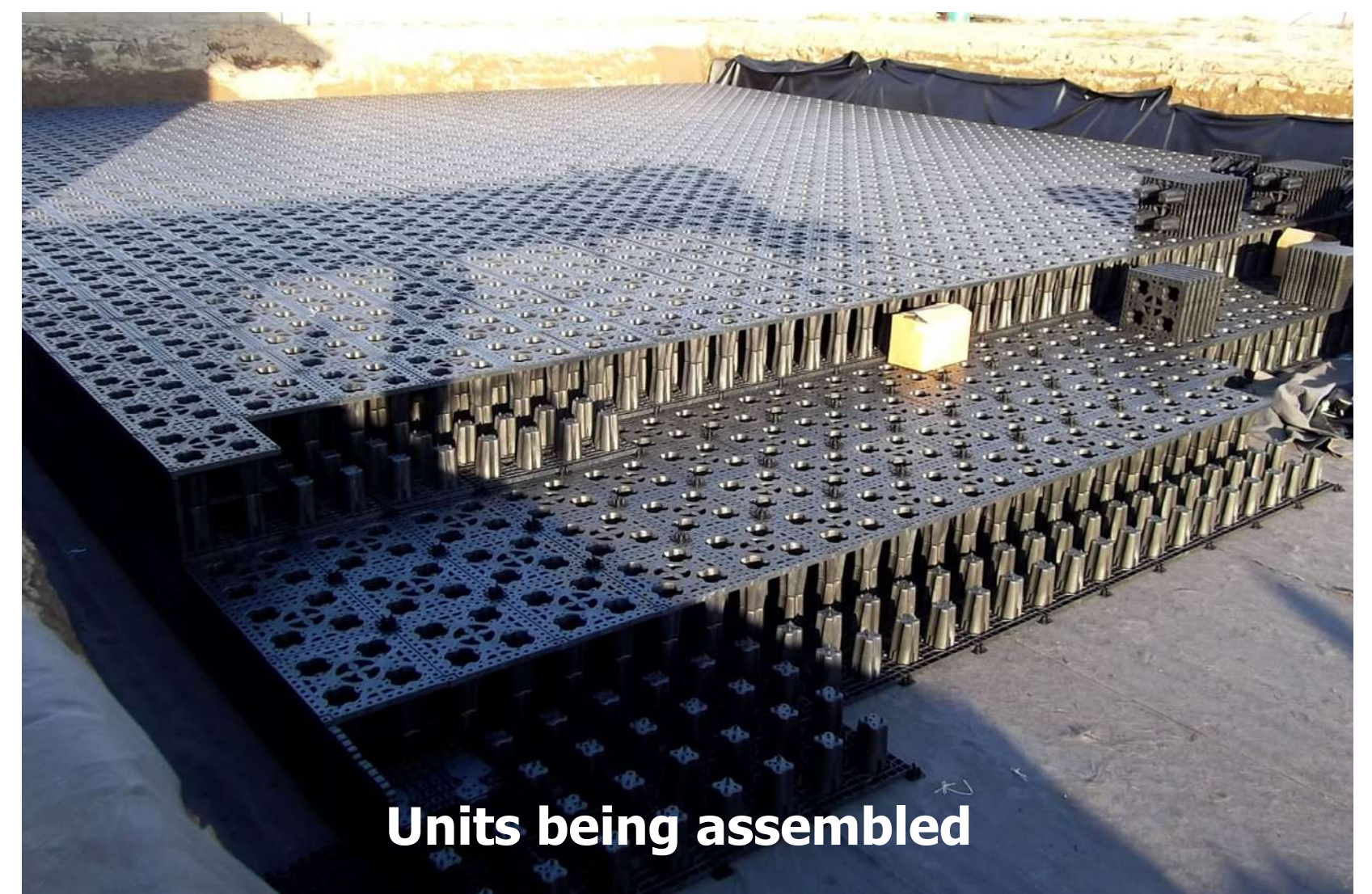
Use of the land above

Association for Rainwater Storage and Infiltration

Technology: Rainwater Engineering Assessment #26 (AE-1)

Eco Mark Certification Number: No. 09131023 (AE-1)

Patent No. 5334913: (Soil-capturing water infiltration wall system)



Units being assembled



Assembly and installation

Installation steps



① Foundation work

② Sheet installation 1

③ Assembly

④ Sheet installation 2

⑤ Inspection hole installation

⑥ Completed

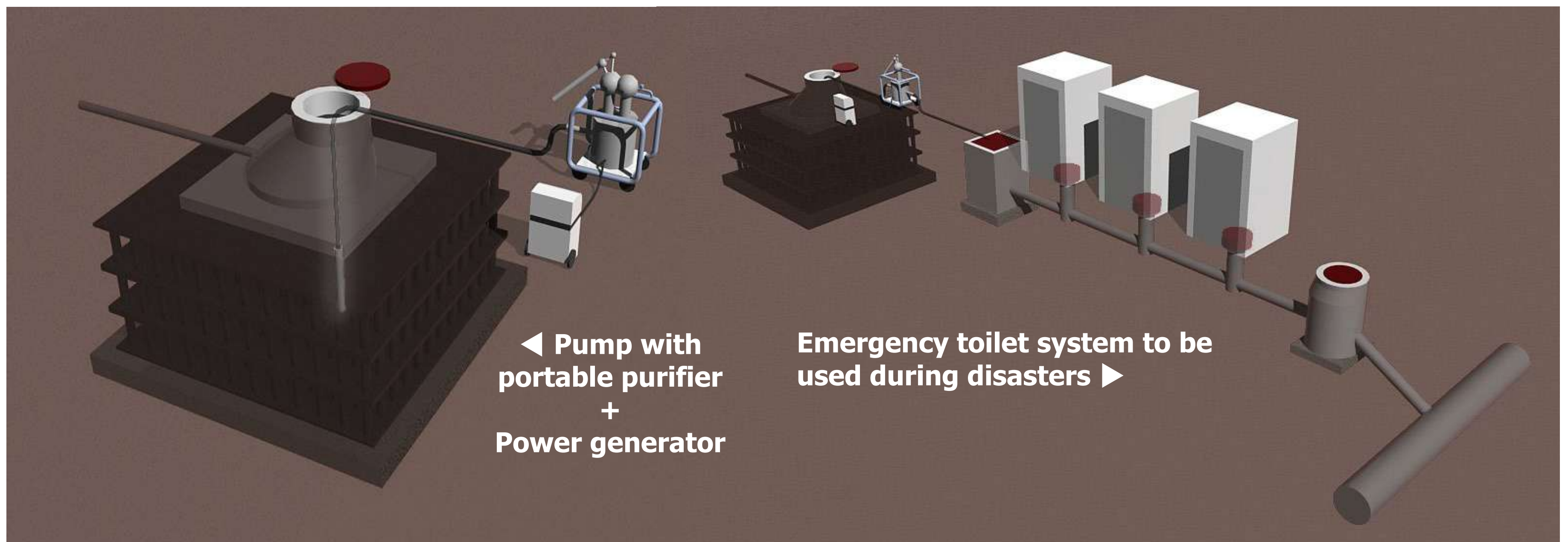


Rainwater utilization system

نظام استخدام مياه الأمطار

The combination of a water permeable pavement and a plastic rainwater retention tank allows efficient rainwater utilization.

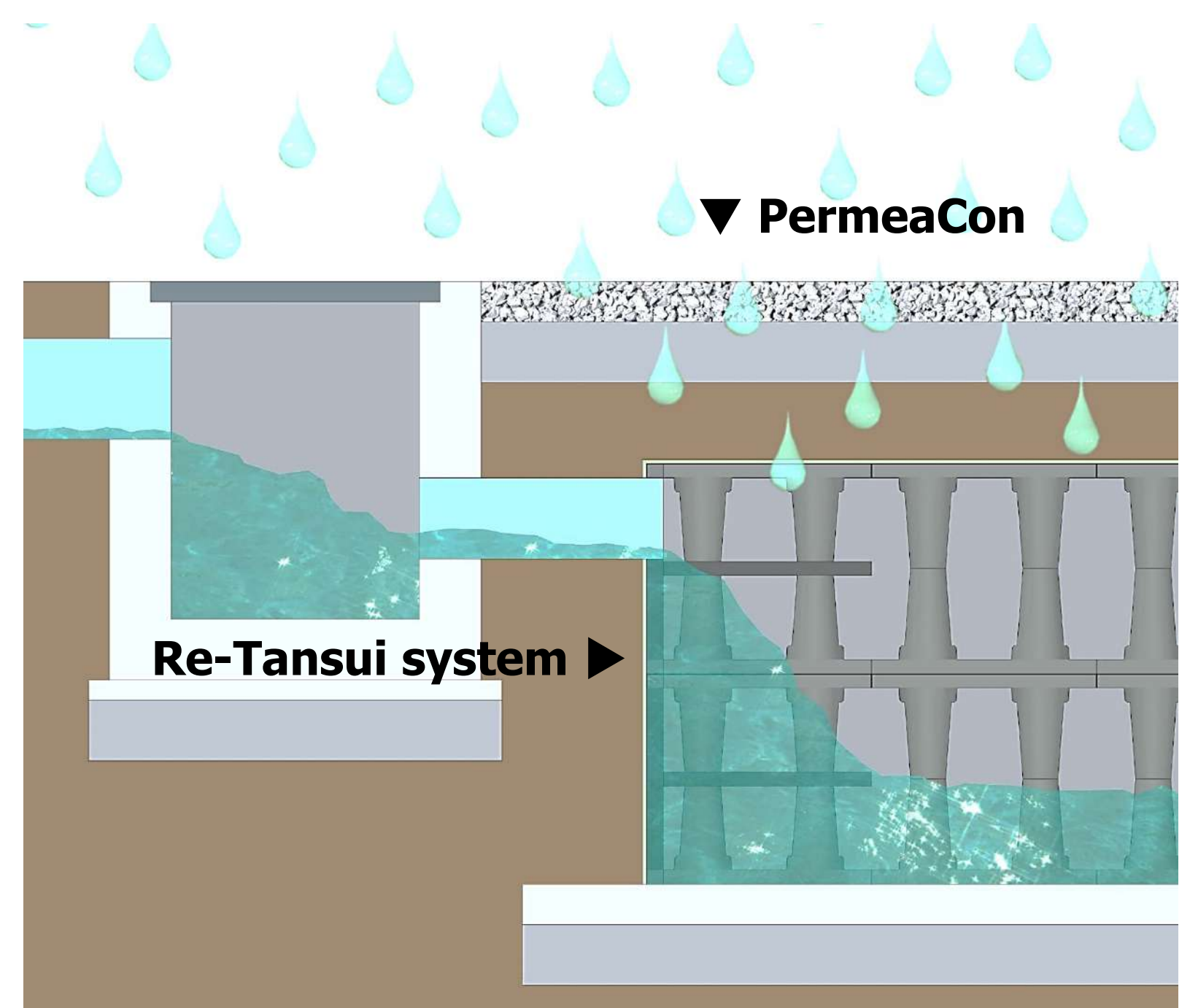
To be used as water source during natural disasters. During natural disasters and emergencies when water service may be disrupted, water retained in the tank can be a valuable water source. Water can be pumped up directly from the tank to be used for washing hands or flushing toilets.



Features

◆ Laying PermeaCon, a water-permeable concrete paving, over the Re-Tansui system allows efficient collection and retention of rainwater into the Re-Tansui system tank. Rainwater flows into the tank both from catch basins and directly from the PermeaCon paving above.

◆ The retained water can be a valuable water source for household uses during natural disasters and emergencies and also for greenhouse watering and other agricultural uses.



Agricultural use

The water retention facility does not require a large concrete tank. It can be buried underground to allow the land above to be used for other purposes.



SW PermeaPack

(خليط مسبق خرسانة الطرق المسامية)
SW بارميا باك

Porous concrete premix paving product

SW PermeaPack is a premix-type porous concrete paving product optimized for small-scale installation and partial pavement repairs and replacements.

Features

- ◆ Only the required amount of product can be prepared for each installation, significantly eliminating material waste compared to having the paving mix supplied from the plant.
- ◆ Most of the required ingredients are already mixed into the product, which will be ready for use by adding water.
- ◆ The product can be installed with simple work tools and thus allows installation in remote locations without concrete mixing facilities. Another possible advantage is that installation work can be flexibly scheduled without worrying about the seasonal availability of local concrete mixing facilities.
- ◆ The overall installation cost is much lower than with conventional paving products.



Package (example)



※The packing style shown is from the development phase.

Packing style (during development)



Material



Simple preparation just by adding water



Material being kneaded

