

Penetrating agent for stopping water leakage

ULTRATECT® WS (water stop)

Fills capillaries and voids inside concrete to stop water leakage

Most water leaks occur through capillaries. “Ultratect WS” penetrates deeply into concrete structures, contributing to water leakage prevention and strengthening the concrete. It also has excellent running costs.

Performance characteristic of Ultratect WS (water stop):

1. Fills capillaries and minute cracks (0.1mm or less) in concrete to stop water leakage.
2. Crack shrinkage after application is reduced to the maximum, thereby preventing water leakage from occurring again.
3. Penetrates deeply and exhibits maximum reforming and strengthening effects.
4. Excess moisture and excess water inside the concrete will be gradually discharged to bring it closer to the normal humidity rate of the concrete.

BEFORE & AFTER

[High-rise building on a certain reclaimed land in Chiba Prefecture]



[Before application] Originated from the location of a reclaimed land in a coastal area. Large amount of moisture in the ground, The reinforcing steel is corroded by chloride ions, resulting in a characteristic tortoise-shell shape.

After: Ultratect WS water stop + after treatment with Ultratect CR

This site is located on reclaimed land in the northern part of Tokyo Bay, and cracks had developed due to a combination of deterioration caused by salt damage and ASR (alkali aggregate reaction), and were expanding.

When Ultratect WS was tested, it was found to be effective in suppressing crack expansion and preventing the recurrence of alkaline aggregate reaction and efflorescence.

Therefore, Ultratect WS + Ultratect CR was applied for repairing the entire floor surface and interior walls that had deteriorated significantly.

Ultratect WS filled the microcracks, but since crack marks remained on the surface, the surface of Ultratect WS was given a cosmetic finish with Ultratect CR.

NOTE: Ultratect WS Penetrates deeply into the concrete and repeats the pozzolanic reaction, so excess water that remains inside the concrete may continue to be drained for a while. Excess water usually stops draining after 2 to 3 weeks, and water leakage become suppressed.

Work procedures

Preparation

Check the temperature (between 5°C and 45°C).



Curing sheet

Glass, aluminum, decorative tiles, gutters, handrails, automobiles, etc. *If it adheres to glass parts, it may cause fogging. Ultratect WS Water Stop is strongly alkaline, so please be careful not to get it on metal parts.



Surface treatment

If there is old paint, remove it with a remover. If there is significant dirt on the applied surface, remove it with high-pressure washing or scrubbing.

*If you use an acidic detergent for cleaning, be sure to neutralize it.

*If there are any loose jumpers or floats, please remove them in advance. After chiseling, apply the specified amount of Ultratect WS, and then apply Ultratect CR to the chiseled surface by rubbing it in with a brush. Then backfill with polymer cement or waterproof cement.



Application

Apply Ultratect WS evenly using a roller, brush, sprayer, etc. Apply thoroughly until saturated. Apply the second coat after the first coat is complete and after the surface is dry.

[Amount of application: 300-400cc/ m² (applied 3-4 times)]



Continuous application

Mix Ultratect CR as specified and rub it in with a rubber spatula (1-2 times).

The crack width that can be repaired using Ultratect CR is approximately 0.2 to 2 mm. For cracks of 1 to 2 mm, Ultratect CR can be injected deeper using a syringe. It is difficult to use a rubber spatula on the floor and the corner of the riser, so please carefully rub Ultratect CR with a brush.

Ultratect CR turns white when dry, so please use the black pigment included in the material set to adjust the color.

*For details on Ultratect CR, please refer to the "Ultratect CR" product catalog and installation specifications.

Notes

Before application

- If you use an acidic detergent, be sure to neutralize it before applying Ultratect WS Water Stop.
- If there is old paint on the concrete surface, remove it using a remover and high-pressure washing.
- When performing construction outdoors, avoid rain (snow) or when rain (snow) is expected immediately after construction.
- Drying time varies depending on the condition of the substrate and structure.
- When using the sprayer outdoors, please be careful as the liquid may scatter. Also, take care to prevent it from adhering to metal or glass parts.

Precautions when using

- Usable environment is between +5°C and 45°C.
- Shake the container well before use.

Precautions during construction and storage

- Please be careful about ventilation during construction.
- Wear safety glasses, a protective mask, and work gloves during construction.
- Do not use or store in places with fire or high-temperature substances.
- After use, close the lid tightly and store in a dark place with little temperature change. Do not store at temperatures below 0°C.
- Please keep out of reach of children.
- If it gets on your skin, wash it off immediately with soap, etc.

*See safety data sheet for additional details.

Manufacturer

MICC TEC
www.ultratect.net