

Specification for Repair Work of the Underground Parking Lot Floor

1. Project:

2. Period: To be determined through negotiation

3. Purpose: This repair work for the apartment building is intended to extend the lifespan of the building and its facilities, enhance the preservation value of the property, and create a pleasant residential environment by increasing the long-term maintenance of the buildings and aesthetically improving the exterior of the building.

4. Scope of the project

Location	Details	Note
Underground parking lot	Floor surfaces, etc.	Epoxy finish after applying elastic mortar (including parking lines)

5. Surface treatment

A. Remove the area to be scraped (raised area) from the floor with a hammer drill, etc., thoroughly remove and clean foreign substances with a broom, etc., and place the waste in a gunny bag.

B. During repair, use an appropriate mixing ratio to prevent lumps.

6. Application of Aquakeeper (elastic mortar) (3 mm)

A. Apply Aquakeeper Primer (AK-500).

B. Stir for more than 5 minutes to prevent lumps according to the mixing ratio, and apply with a target thickness of 3mm.

Product	Packaging unit:	Waterproof mixing ratio			Note
		Aquakeeper AK-1000(A)	Water	Elastic mortar AK-1000(B)	
AK-1000	15kg/piece	15kg	15kg	75kg	Wet the floor thoroughly before work or apply primer.



Aquakeeper Primer applied (AK- 500)

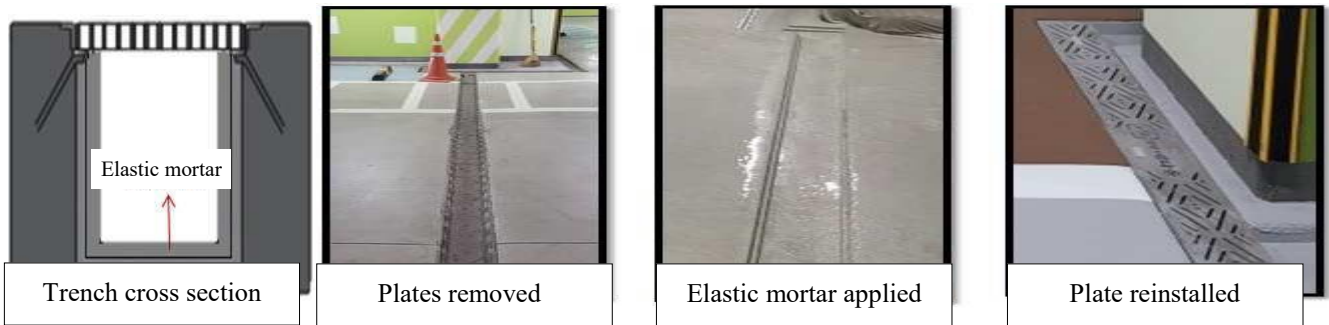


Aquakeeper applied (elastic mortar)



7. Trench waterproofing (if applicable)

- A. Remove all underground parking plates.
- B. Repair and waterproof the trench area (corners may be trimmed, and trench repair may involve cutting).
- C. Reinstall the plates.



8. Primer installation

- A. Before work, completely remove dust from the surface after finishing the base treatment.
- B. Completely remove oil, moisture, laitance, and other foreign substances from the surface, maintain flatness, and apply a thin layer using a brush or roller to prevent it from pooling on the substrate.
- C. Apply two coats if the concrete substrate is porous and a single coat does not create a sufficient film.
- D. Mix the epoxy base coat and hardener in the manufacturer's volume ratio and apply the paint with a film thickness of about 50µm to sufficiently absorb into the surface.
- E. Dilute with a designated thinner (diluent) to ensure the primer is sufficiently absorbed into the floor surface.

	5 °C	20 °C	30 °C
Time to cure	48 hours	24 hours	12 hours
Completely dried	7 days	4 days	2 days

9. Epoxy coating (top coat)

- A. Apply with a film thickness of 250µm or more.
- B. For the top coat, apply with a roller and brush with a thickness of 125µm, and apply each coat after the previous one has sufficiently dried.
- C. After the bottom coating, after the tackiness of the bottom coat has completely disappeared over time at 20°C, remove all contaminants on the bottom film and paint by mixing the base material and hardener in volume according to the manufacturer's mixing ratio.
- D. Be careful of burns and fire; if the paint is not applied immediately after mixing, high-temperature heat and smoke may be generated due to an exothermic reaction.
- E. If the paint temperature is low (below 5°C), the viscosity of the paint increases, resulting in poor workability and appearance.
- F. Use diluted within about 3% by volume. Over-dilution may cause poor curing, reduced hardness, discoloration, wrinkles, and cracks.

G. Embossed epoxy (not epoxy) should be applied to the corners though the same process as above.



Epoxy coating



Embossed epoxy

10. Painting parking lines and direction markings

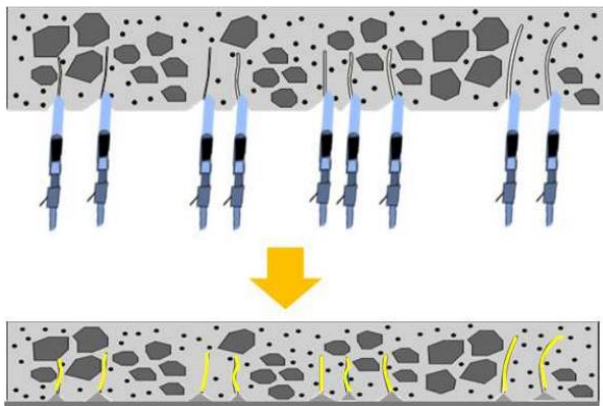
A. After top coating, paint the parking lines as before. Clearly draw parking lines and paint them while avoiding them being dispersed.



Painting parking lines

11. Injection into leaking areas in the underground parking lot

- A. Completely remove dust, oil, and other contaminants from leaking areas.
- B. Drill cracks, defects, or holes in the protective concrete in the waterproofing layer.
- C. Insert the packer into the drilled holes and inject the injection agent.
- D. After injection, remove the packer and then repair and finish the surface.



12. Installation of guidance panels (to proceed after communication)

- A. After checking the leakage section, measure the extent of leakage and manufacture the panels using SUS material.
- B. Insert the ceiling bolts to secure the four sides of the drain plate.
- C. Connect PVC pipe to the surrounding water catch basins or open trenches.



13. Quality control

- A. Carry out the repair work according to specifications under thorough supervision by managers.
- B. In case of a quality issue, immediately supplement or reinstall.
- C. After completion, make every effort to fulfill follow-up management, such as cleaning up the surrounding area.

14. Safety management

- A. Install safety equipment and safety signs necessary for safety during the repair work.
- B. Periodically conduct safety training and safety guidance.