

Rapid Repair Mortar for Concrete Pavements

1. Substrate Preparation

Use tools such as a milling machine or electric chisel to remove loose parts and oil stains from the road surface. Conduct roughening treatment on smooth parts of the foundation.

2. Road Surface Preparation

- ①Sweep away dirt or dust from the ground.
- ②Clear away debris after milling or chiseling, keeping the ground foundation clean.

3. Rinsing and Wetting

- ①Thoroughly rinse the repair area with a high-pressure water gun, rinsing back and forth 2-3 times.
- ②Ensure there is no dirt or dust on the ground that could affect the adhesion between the product and the original surface.
- ③After rinsing, soak the foundation thoroughly to prevent the foundation from absorbing water from the material, which could lead to moisture loss affecting strength and causing air holes.

4. Clearing Standing Water

- ①For areas with standing water or puddles, use a sponge or mop to clear the water, ensuring the foundation is moist but free of standing water before construction.
- ②Using LMG Repair Special Interface Agent will provide better results! Apply the interface agent in two coats. For the first coat, dilute with water at a ratio of 1:4-5 and spray or roll onto the concrete surface. After the material dries, apply the second coat, diluted at a ratio of 1:2-3.

5. Add Water First, Then Add Material

- ①Add 18% water (add 4.5 kg of water to 1 bag of repair material), adding water before adding the material.
- ②When performing the first water addition, use an electronic scale or a marked water bottle to measure the water quantity.
- ③For large-scale projects, prepare a small bucket with oil pen markings for water quantity to improve construction efficiency.

6. Material Mixing

- ①It is recommended to use an electric mixer to mix the material, avoiding manual mixing which might result in uneven or untimely mixing.
- ②Ensure the material is mixed thoroughly; stir for 2 minutes, let it rest for 1-2 minutes, then stir again for 2 minutes to ensure even mixing.
- ③The material sets quickly; the mixed repair material must be used within 15 minutes. Do not re-mix hardened material with additional water.

7. Leveling and Polishing

- ①Pour the mixed material into the repair area and level it with a trowel or scraper.
- ②Immediately after leveling, use a deaeration roller to eliminate surface air bubbles.
- ③Once the product starts to set, if necessary, perform a second polish to ensure surface flatness.

8. Two-Pass Repair for Cracks

- ①For cracks, perform a two-pass repair. After cleaning the crack, lay the repair material, quickly cover with mesh cloth and secure it. Then, lay another layer of repair material. When the material begins to set, use a toothed trowel to create a rough surface.
- ②After the repair material has fully set, a second layer can be laid. If it's an expansion joint, cut along the original position after the material has fully set.

9. Cutting Expansion Joints (Based on Site Requirements)

- ①For areas approximately 20 square meters, expansion joints must be reserved or cut along the original joint positions, ensuring the new expansion joints are cut through completely.

10. Film Covering and Curing

- ①Under high-temperature conditions, timely curing is required. After the material has set and gained strength, you can water-cure, cover with film, straw mats, or use LMG Special Concrete Curing Agent for curing.
- ②Optimal construction temperature is between 5-25 degrees Celsius.

③For heavy-traffic areas, the curing period should not be less than 7 days, and traffic can resume based on needs.

Notes:

①Do not construct below 0 degrees Celsius.

②The road surface must have a solid foundation, and it must be thoroughly rinsed before construction.

③The repair area must be sufficiently moistened.

④Smooth surfaces must undergo roughening treatment.

⑤The road surface must not have standing water before laying the material.

⑥ The water-to-material ratio should strictly follow the manufacturer's instructions provided with the product.

Based on the road surface condition, we recommend a thickness of around 3-5 millimeters. The material's tensile bond strength is above 1.6 MPa (depending on the water-to-material ratio). After 28 days of construction, the Mohs hardness reaches 6.5-7.0, the compressive strength reaches 60 MPa, and the flexural strength reaches 10 MPa.