

PRODUCT DATA SHEET

Cement Repair Mortar

INTRODUCTION

Cement Repair Mortar is specially formulated to address defects in cement concrete pavements, including pitting, hollow spots, spalling, delamination, cracks, and exposed reinforcement. It can be applied directly to the damaged areas, providing excellent compressive and bond strength. This enables ultra-thin layer repairs and rapid restoration for traffic reopening. Under high-speed and high-pressure traffic conditions, it resists cracking or debonding. This material is suitable for all surface defects on cement concrete structures.

APPLICATION

This product is suitable for application on all cement concrete surfaces, including but not limited to highways, factory floors, parking lots, industrial parks, service areas, driving schools, gas stations, warehouses, garages, bridges, steps, terraces, roofs, and both interior and exterior environments.

ADVANTAGES

- **Rapid Repair:** Quickly restores road surfaces with fast curing, minimizing traffic congestion caused by prolonged road closures and significantly improving work efficiency.
- **Compression & Wear Resistance:** High bonding strength and wear resistance. Repaired sections can reopen to traffic within 3 hours, with rapid curing at room temperature.
- **Eco-Friendly:** Waterproof, freeze-thaw resistant, acid/alkali/corrosion-resistant, non-toxic.
- **Aesthetic & Durable:** Minimal color difference; thermal expansion coefficient matches base concrete for seamless integration.
- **Easy Application:** Simple, fast, and suitable for cold northern climates. Ideal for emergency repairs.
- **Cost-Effective:** Saves over 50% in costs compared to traditional repair methods.
- **Time-Saving:** Reduces project timelines by 60%.
- **Traffic-Ready & Sustainable:** Enables rapid reopening to traffic while being energy-efficient and environmentally friendly.

PACKAGING & COVERAGE

Specification:	25kg/bag
Appearance:	One component, grey powder.
Coverage:	Recommended application thickness: 3~5mm. 25 kg of this product covers approximately 5m ² .
Working time:	20 minutes
Shelf Life:	6 months

CONSTRUCTION STEPS

1. Substrate Preparation and Cleaning

Prior to application, thoroughly clean the base surface. Remove all loose particles such as gravel, dust, and sand. The cleaner the substrate, the stronger the bond achieved with the cement repair mortar. (This product is typically suitable for thin-layer, large-area application. For repairing deep cracks, please refer to Item 2 in the "Note" section below.)

2. Substrate Saturation via Water Jet

Saturate the ground completely using a high-pressure water jet. Apply water repeatedly until the surface no longer absorbs it. This step is crucial; insufficient saturation will cause the dry substrate to rapidly draw moisture from the applied mortar, compromising bond strength and leading to potential delamination and cracking.

3. Control of Surface Moisture

Ensure the substrate is damp but without any visible free-standing water or puddles. If present, use a sponge or cloth to remove excess water. This prevents material dilution and bubble formation.

4. Primer Application (Optional)

If conditions permit, apply a bonding agent / concrete surface hardener (primer) using a cross-hatching method (one horizontal coat followed by one vertical coat) for a total of two coats.

5. Mortar Mixing Procedure

Mix one bag (25 kg) of cement repair mortar with 4.5 liters of water. Note: Excessive water can cause sand particle segregation. Always add water to the mixing container first, then add the dry powder. Use a mechanical mixer to blend for approximately 5 minutes until a homogeneous,

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lump-free, and bubble-free consistency is achieved.

6. Mortar Application and Finishing

Pour the mixed mortar onto the prepared substrate. Use a notched trowel to spread and level the material. Complete the application process within 20 minutes to avoid the mortar beginning to set, which would hinder proper spreading. Apply at a thickness of 3mm to 5mm. Immediately after troweling, use a spiked roller to eliminate entrapped air bubbles.

7. Curing and Opening to Traffic

Wait for Curing and Traffic Opening. No watering is required after application. After approximately 6 hours of natural curing, the surface becomes walkable. If time permits, it is highly recommended to delay vehicular traffic until the following day, as this effectively extends the service life. Note: Should the surface appear excessively dry, re-moisten it by lightly sprinkling or spraying water.

Note:

1.Ensure the substrate is thoroughly cleaned as required. Applying this product to a loose or unstable base will result in cracking or fragmentation, analogous to building a tall structure on a weak foundation, which is certain to collapse. Therefore, proper substrate preparation to

eliminate all looseness is absolutely critical.

2.This product is generally suitable for thin-layer, large-area repairs, typically applied at a thickness of 3mm to 5mm. For repairing small, deep cracks, first use a saw cutter to widen the crack, clean it thoroughly, and then pour the product into the cavity for repair. For larger cracks, it is recommended to add crushed stone or coarse aggregate to the mix to enhance its strength.

3. This product should be applied at temperatures above 5°C. Do not apply during rainy conditions.

HANDLING & HEALTH

- 1.Please wear rubber or plastic gloves to avoid contact with skin.
- 2.Product is for professional use only.
- 3.If the product comes into contact with skin during application, it can be removed by rinsing the affected area with clean water.

STORAGE & SAFETY

- 1.This product is eco-friendly and non flammable.
- 2.This product must be stored dry, protected from sun and rain.

TECHNICAL DATA

No.	Test Item	Data
1	Appearance	Lump-free powder
2	Setting time	Initial Setting, min
		Final Setting, min
3	Compressive Strength, MPa	24h
		28d
4	Flexural strength, MPa	24h
		28d
5	Tensile bond strength, MPa	Untreated, 28d
		Water immersion, 28d
		25 freeze-thaw cycles, 28d
6	Mohs Hardness	6

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